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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01000

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PART 1 GENERAL

1.1 DESCRIPTION OF WORK

The work of this contract includes, but is not limited to, construction of levees, pump stations, storm sewer systems, bituminous roads and trails, park shelters, restrooms, and other recreational features.

1.2 ORGANIZATION OF SPECIFICATIONS

The specifications which govern the materials and equipment to be furnished and the work to be performed under this contract are listed in the Table of Contents. No attempt has been made in the specifications to segregate work to be performed by any trade, craft, or subcontractor. Any segregation between the trades or crafts shall be solely a matter for agreement between the Contractor, Contractor's employees, and subcontractors.

1.3 REFERENCES

Reference to the standards, specifications, or codes of any technical society, organization, or association, or local, state, or Federal authority shall mean the specific edition or revision listed.

1.4 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with SECTION 01330: SUBMITTAL PROCEDURES:

SD-04 Drawings

Utility As-Builts; FIO

The Utility As-Builts are described under PARAGRAPH: SURVEYS.

SD-08 Statements

Dewatering Plan; FIO

The submittal requirements are as described in PARAGRAPH: DEWATERING OPERATIONS.

Shoring plan; FIO.

The submittal requirements are described in PARAGRAPH: SHORING.

Haul Route Permits; FIO.

The submittal requirements are described in PARAGRAPH: HAUL ROUTES.

Utility Service Interruption Request; GA.

Submit request to interrupt utilities as described in PARAGRAPH: INTERRUPTION OF SERVICES.

Traffic Control Plan; GA

A traffic control plan shall be submitted as described in PARAGRAPH: ROADWAYS.

Levee Removal/Flood Protection Plan; GA

A plan for removal of levees and flood protection during construction operations shall be submitted as described in PARAGRAPH: Levee Removal.

SD-09 Reports

Preconstruction Damage Report; FIO

Preconstruction damage reports shall be submitted as described in PARAGRAPH: PRECONSTRUCTION DAMAGE SURVEY.

1.5 MEASUREMENT AND PAYMENT

The Contractor shall be responsible for the work of this section, without any direct compensation being made other than the payment received for contract line items on the bidding schedule.

PART 2 PRODUCTS

2.1 APPROVAL OF MATERIALS OR ALTERNATES

Requests for approval of materials and products, or substitutes thereof, will not be considered prior to award of the contract.

2.2 WARRANTIES

Any items that are submitted for review or approval of the Contracting officer should include a copy of the manufacturer's standard warranty if one is available.

PART 3 EXECUTION

3.1 GROUNDS AND ROADWAYS

3.1.1 Availability of Grounds

The boundary limits of the grounds made available for the Contractor's use during the life of the contract are shown on the drawings. Any additional rights-of-way or grounds desired by the Contractor shall be obtained by the Contractor at its own expense, and copies of agreements for the use of such rights-of-way shall be furnished to the Contracting Officer before entering thereon. Such agreements shall clearly relieve the Government of any responsibility for damages resulting from the use of the grounds.

3.1.2 Drainage Facilities

Insofar as natural drainage from protected areas and agricultural fields is obstructed by contract operations, it shall be the Contractor's responsibility to make adequate provision for accommodating such drainage in a satisfactory manner during the life of this contract, either by temporary means or by use of the permanent construction and operation of the permanent facilities.

3.1.3 Roadways

3.1.3.1 Traffic Control Plan

A traffic control plan including, but not limited to, road closures, detour drawings, traffic signage lists and locations, and a schedule of traffic modifications shall be submitted for approval. The traffic control plan shall be in accordance with the Minnesota Manual on Uniform Traffic Control Devices. The Contractor shall coordinate with the City of East Grand Forks to determine restrictions on road closures and detours. Known restrictions are listed below:

1) Bygland Road shall not be closed to traffic. A minimum of 1 lane of traffic in each direction shall be maintained on Bygland Road.

2) Highway 2 shall not be closed to traffic, and the On/Off ramps for Highway 2 shall not be closed without prior coordination with MNDOT and the City of East Grand Forks.

3) Catfish Days will be held in the City of East Grand Forks on August 10-12, 2001 and on a Friday through Sunday in August 2002. The Contractor shall maintain access to the gravel road over the storm sewer discharge pipes at the K-12 pump station in Reach 2 for emergency vehicles during Catfish Days.

Warning signage shall be installed at the entrance to the gravel road over the storm sewer discharge pipes at the K-12 pump station in Reach 2 for the duration of work operations in Reach 2.

An All-School Reunion will be held in the City of East Grand Forks from August 17-19, 2001. Increased traffic levels in the project area are anticipated for this event.

3.1.3.2 Traffic hazards

When continuous haul operations or other conditions created by the

Contractor's operations result in interference or hazard to traffic on streets and highways, beyond that of ordinary public usage, the Contractor shall erect warning signs and provide flagging services as necessary to safeguard the public as required in SECTION 01500: TEMPORARY CONSTRUCTION FACILITIES.

3.1.3.3 Haul routes

The Contractor shall be responsible for securing all permits required along haul routes. The Contractor shall be the sole permittee and shall be responsible for meeting all obligations of the permits. A copy of each permit shall be submitted to the Contracting Officer. The Contractor, as between the Government and the Contractor, has sole responsibility for damage or deterioration of the Contractor's haul routes. Dust control shall be provided as stated in SECTION 01410: ENVIRONMENTAL PROTECTION.

3.1.3.4 Subsurface Crossings

Interruption of River Road, 4th Street NW, and Highway 2, in Reach 1, for installation of storm sewer piping will not be allowed. Storm sewer piping in these areas, listed below, shall be installed using jacking techniques as specified in SECTION 02630: STORM-DRAINAGE SYSTEM.

1) Pump Station K-7 Outlet Pipes under River Road.
2) Pump Station K-10 Outlet Pipes under 4th Street NW.
3) Storm Sewer Piping from approximately 8th Avenue and 10th Street on the North Side of Highway 2 to the south side of Highway 2.

3.2 DISPOSAL OF DEBRIS AND WASTE

The Contractor's attention is directed to SECTION 01410: ENVIRONMENTAL PROTECTION and to the following SECTION 00700: CONTRACT CLAUSES: PERMITS AND RESPONSIBILITIES; PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES, EQUIPMENT, AND IMPROVEMENTS; OPERATIONS AND STORAGE AREAS; and CLEANING UP. Burning will not be permitted at the project site and debris or waste shall not be left on the site. Disposal of clearing and grubbing debris shall be by the following method:

3.2.1 Disposal Offsite for Useful Purposes

In the interest of conservation, it is required that the Contractor make a reasonable effort to dispose of the material offsite for some useful purpose. Timber may be cut into convenient lengths and utilized for making saw logs, posts, cordwood, wood chips for paper making or other uses, or other similar use.

3.2.2 Disposal in a Locally-Operated Sanitary Landfill

Contractor shall select the disposal site with the approval of the Contracting Officer. The Contractor shall secure the required permits for disposal and provide copies of the permit to the Contracting Officer.

3.2.3 Disposal of Solid Construction Debris and Waste

Disposal of solid construction debris and waste shall consist of removal from Government property and disposal in compliance with federal, state and local requirements for solid waste disposal. Contractor shall select the disposal site with the approval of the Contracting Officer.

3.3 EXISTING UTILITIES

3.3.1 General

The Contractor shall coordinate all utility relocation requirements. The Contractor shall make payment to the utility companies for all services, fees, and permits required to relocate and reestablish service for utilities relocated for the convenience of the Contractor's operations. The Contractor shall be responsible for all costs related to protecting existing utilities.

3.3.1.1 Utility Relocations

The existing utilities to be removed or relocated by the Contractor are shown on the drawings. The City of East Grand Forks and private utility companies are responsible for removing and relocating other existing utilities that penetrate through or under the new levees and existing utilities that conflict with new facilities constructed under this contract. The Contractor shall coordinate with the City of East Grand Forks and the utility companies to ensure that relocation of the utilities is performed without causing delay to the project.

3.3.1.2 Utility Coordination Meetings

The City of East Grand Forks conducts weekly coordination meetings with utility companies that service the City. The Contractor shall participate in the weekly coordination meetings. The meetings are currently held each Tuesday morning at the City Hall in East Grand Forks, Minnesota. If necessary, the meeting date, time, and location may occasionally be changed due to conflicts, to other dates, times, and locations within the City of East Grand Forks.

3.3.2 Buried Utilities

The approximate locations of known existing buried utilities are shown on the drawings to the extent of available information at the time the drawings were prepared. In general, no service connections are shown. Prior to commencing excavation, the Contractor shall accurately locate all such installations. In the event the Contractor damages any existing utility lines, report thereof shall be made immediately to the Contracting Officer. If the Contracting Officer determines that repairs shall be made by the Contractor, such repairs shall be performed immediately. The costs associated with repairs shall be borne by the Contractor.

3.3.3 Interruption of Services

Utility services shall not be interrupted except for brief periods to facilitate cut-ins. The Contractor shall provide temporary service and shall relocate existing utilities as required to construct the work shown

and insure uninterrupted service. If interruption of services is unavoidable, the Contractor shall request approval in writing at least 30-calendar days prior to the proposed interruption. This submittal shall fully describe all details of proposed interruption and the reasons why alternatives are not feasible. The Contractor shall further coordinate with the owner of the utility and notify affected consumers at least 10-calendar days in advance of interruption of services. The Contracting Officer will not in general approve proposals which require interruption of services for more than 4 continuous hours.

3.3.3.1 Sanitary Sewer Forcemains

Interruption of service of sanitary sewer forecemains will not be allowed. Relocation of sanitary sewer forcemains shall be performed without interruption of service as described in SECTION 02532: FORCEMAINS.

3.3.4 Minnesota One Call Excavation Notice System

For contract work performed within the State of Minnesota, the Contractor shall meet the requirements of Minnesota Statutes, Chapter 216D "One Call Excavation Notice System." The Gopher State One Call notification center telephone numbers are:

Hotline:	(651) 454-0002
Outstate:	(800) 252-1166

3.4 SCHEDULING

3.4.1 General

It shall be the responsibility of the Contractor to schedule and execute the work, incorporating the necessary requirements set forth in these specifications. The Contractor shall develop and submit a schedule in accordance with SECTION 00800: SPECIAL CONTRACT REQUIREMENTS: SCHEDULES FOR CONSTRUCTION CONTRACTS.

3.4.1.1 Interim Completion Dates

Interim completion dates are not subject to adjustment. Modifications that affect the overall project completion date will not automatically change the interim completion dates accordingly. In the event that interim completion dates are not met, the Contractor shall be responsible for subsequent additional costs to this contract and for additional cost to related contracts by others.

3.4.2 Substantial Completion

The project shall be substantially complete on or before December 20, 2002. Substantial completion shall include completion of all work except work associated with planting of trees and shrubs and restoration of staging areas.

3.4.3 Levee Construction

Construction of levees shall be completed and ready for acceptance by November 1, 2002.

3.4.4 Pump Stations

Pump stations in Reach 1 and Reach 3 shall be completed and be fully operational by March 1, 2003.

3.4.5 Reach 2

The work associated with Reach 2, including but not limited to, construction of the K-12 Pump Station and Gatewell,junction manhole, and interior drainage shall be completed by March 1, 2002. Turf establishment and installation of trees and shrubs in Reach 2 shall be completed by July 20, 2002.

3.4.6 Reach 3 - Bygland Road Realignment

A project to realign Bygland Road and 3rd Avenue SE in Reach 3 will be performed by others in 2001. Anticipated start and completion dates are June 1, 2001 and November 30, 2001 respectively. Construction of the Phase 1 Levees project in the vicinity of the Bygland Road realignment shall be performed concurrent with the realignment project.

1) City of East Grand Forks Water and Light Department will be relocating electric power lines in alley behind 3rd Avenue. Anticipated completion is July 2001.

2) Storm sewer facilities and road surface restoration from manhole 3P to 3K shall be completed by August 31, 2001. Construction of storm sewer facilities and road surface restoration from manhole 3P to 3L shall be completed prior to performing work associated with storm sewer between manholes 3L to 3K.

3) Bygland Road stoplog closure shall be completed up to sill elevation by September 28, 2001. The Phase 1 Levee Contractor shall construct the stoplog closure and the road work within 20 feet on each side of the stoplog closure as shown. The Contractor for the Bygland Road realignment Contractor will perform road work on each side of the stoplog closure up to 20 feet from the closure.

4) Construction of the levee embankment between stations F55+00 thru F61+00 shall not commence until the new Bygland Road alignment is open to public traffic and 5th Avenue and 3rd Avenue are removed from public traffic use which is estimated to occur November 30, 2001.

5) Construction of pump station L-1 shall not commence until 5th Avenue and 3rd Avenue are removed from public traffic use which is estimated to occur November 30, 2001.

3.4.7 Reach 3 - Timberline Court

Construction operations on the levee, bituminous trail, and associated work between Stations F40+00 and F45+00 shall not commence until cultural and

archeological resources clearance is provided by the State Historic Preservation Office. An application for clearance of this area has been made. Clearance is anticipated to be given in Summer 2001.

3.4.8 Reach 1 - Highway 2 Interchange

A project to construct a new highway interchange at Highway 2 and River Road in Reach 1 will be constructed in 2002. It is anticipated that construction will begin May 1, 2002 and be completed by November 30, 2002. Levee embankment and drainage facility construction, except for planting of trees and shrubs, within the highway right-of-way shall completed prior to May 1, 2002 or coordinated with the highway Contractor such that it does not impact their work effort.

3.4.9 Arena Trailhead Electric Lines

Underground electric lines have been installed by the City of East Grand Forks in the Arena trailhead as indicated. The line at station F 75+05 was direct buried and is currently in service. The line at station F 74+40 was installed in conduit and is currently not in service. The line at station F 75+05 will be taken out of service in Spring, 2002. The line at station F 74+40 will be placed in service at the time that the line at station F 75+05 is taken out of service. Work shall be scheduled to ensure adequate clearance is maintained from the electric utilities. The electric lines will not be allowed to be taken out of service for construction operations.

3.4.10 Notification

The Contractor shall inform the Government in writing within 5 days after receipt of notice to proceed and before work begins as to which hours of the day and days of the week work under this contract will be performed. The Contractor shall notify the Government at least 24 hours before work is to be conducted on overtime, in multiple shifts, on weekends, or on Federal Government holidays.

3.4.11 Work Hours

The City of East Grand Forks has a noise ordinance. In accordance with the noise ordinance, work at the project site shall not be performed earlier than 7:00 a.m. and not later than 10:00 p.m.

3.5 CONSTRUCTION RESTRICTIONS

3.5.1 Blasting

Blasting will not be permitted.

3.5.2 Protection of Trees

Trees to be protected shall be determined and staked by the Contracting Officer. The following measures shall be implemented for tree protection and shall be addressed in the Environmental Protection Plan required under SECTION 01410:

a. The trees shall be protected from wounds to the bark and foliage.

b. The critical root zone shall be protected from compaction and grading.

c. Changes in temporary site drainage and ponding shall be minimized to the extent possible that it effects the protected trees.

The critical root zone of trees designated to be protected shall be surrounded by a high visibility fence 4 feet in height, supplied and erected by the Contractor. The critical root zone shall be defined by an area extending 1.5 feet radius from each tree for each inch of Diameter at Breast Height (DBH). The fence shall be securely erected and installed prior to any movement through the project site by construction vehicles or equipment, and remain in place until construction and clean-up are completed. The critical root zone shall remain free of all construction activities including trenching, staging, stockpiling and storage of materials. Vehicles and equipment shall not drive or park within the critical root zone. Variation to the critical root zone size or configuration will only be permitted where it is absolutely necessary for construction of the project, and requires approval of the Contracting Officer. Short duration alterations of the critical root zone involving wood chips and limited equipment travel shall be submitted in writing for approval.

The Contractor shall not operate equipment in vegetated areas outside the work limits.

3.5.2.1 Restoration of Damaged Trees

Any existing tree designated to be protected that is damaged by the Contractor's operations shall be replaced. Trees will be considered damaged if the critical root zone in cohesive soils is compacted, if there are significant wounds that could contribute to rot, or if distress (evident by reduced growth or other observations of distress documented by a forester) is observed prior to closing the contract. Trees shall be replaced in kind on a caliper inch per caliper inch basis (DBH) (i.e. one 6-inch red oak shall be replaced with two 3-inch red oaks, three 2-inch red oaks, or six 1-inch red oaks). Replacement trees shall be planted in accordance with SECTION 02930: EXTERIOR PLANTING and guaranteed with the Contractor's standard warranty. Replacement tree size and location will be determined and staked by the Contracting Officer. Repair by pruning, aeration, soil conditioning, or other recommendation from a qualified forester will be considered as substitution for replacement by the Contracting Officer.

3.5.3 Pavement Removal and Replacement.

Where roads are cut, removed, or otherwise damaged in the prosecution of the work the Contractor shall replace all pavements or other surfacings so removed or damaged to their preconstruction condition, unless otherwise specified or indicated. After backfill is completed on paved streets, a temporary surface shall be laid down and the street opened to the traffic in order to provide access to abutting property. Restoration of the

original street surface construction shall be completed no later than 60-calendar days after starting excavation. Should weather conditions preclude the restoration of the original surface material, temporary resurfacing utilitizing a bituminous mixture shall be installed with the final surface constructed no later than June 1 of the following construction season.

3.5.4 Borrow and Disposal Areas

Each borrow area and disposal area is subject to the approval of the Contracting Officer. Proposed borrow areas which involve the excavation of wetlands or wooded areas will not be approved by the Contracting Officer. Disposal areas which involve the placement of materials in wetlands or floodplains areas will require a minimum of 30-calendar days for review for approval and disapproval.

3.5.5 Contaminated Materials

The Contractor shall comply with all applicable federal, state, and local requirements if contaminated soils, materials, and/or groundwater is/are encountered during construction activities within the contract project work limits. If contaminated materials/areas are encountered, the Contractor shall immediately notify in writing the following regarding such: the Contracting Officer, and each appropriate federal, state, and local agency. All work associated with implementation of a contingency plan and handling and/or disposal of contaminated soils, materials, and or groundwater shall be performed in accordance with CONTRACT CLAUSE: CHANGES.

3.5.6 Accident Prevention Plan

The contractor's accident prevention plan, as required in CONTRACT CLAUSES: ACCIDENT PREVENTION, shall specifically address site safety and monitoring with regards to possible encounters with contaminated soils, materials, and/or groundwater. The Contractor's accident prevention plan shall also include a contingency plan to be implemented immediately upon encountering contaminated soils, materials, and/or groundwater.

3.5.7 Work In Vicinity of River Banks

To the greatest extent possible, Contractor shall not stockpile material or use heavy equipment within 100 feet of the existing river banks.

3.5.8 Environmental Assessment of Contractor Deviations

Any deviations, requested by the Contractor, from the drawings and specifications, which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

3.5.9 Levee Removal

The work shall be sequenced so that the level of protection afforded by existing levees (not including additional emergency raises completed in the Spring, 2001 flood fight) is maintained for areas within the final constructed levee alignment. When existing levee integrity is removed, the Contractor shall be prepared to provide, if necessary, and shall provide when directed by the Contracting Officer, flood protection equal to the level of protection of the existing levees prior to starting construction. The Contractor shall submit a sequencing plan which:

a) Identifies areas where sequencing is necessary to maintain flood protection.

b) Indicates how the work will be sequenced in the identified areas so that the potential exposure to flood threat is minimized and,

c) Indicates how any reduction to levee protection, due to the Contractor's operations, will be restored when directed by the Contracting Officer.

3.6 OTHER CONTRACTS

The Contractor shall coordinate with other contractors in the performance of the work and schedule such work to provide for a minimum of delays and interferences. Coordination shall be through the Contracting Officer. Work listed below is currently required under separate contract or is scheduled to be awarded as a separate contract prior to completion of work under this contract. These contracts will be considered in the application of SECTION 00700: CONTRACT CLAUSE: OTHER CONTRACTS.

3.6.1 Other Contracts

Contracts for work within the project limits will be performed by others concurrent with this project. Contracts for the Bygland Road Realignment and the Highway 2 Interchange will be performed as described in PARAGRAPH: SCHEDULING. The City of East Grand Forks and utility companies will be working within the project limits to remove and relocate utilities in conflict with the project as described in PARAGRAPH: EXISTING UTILITIES. A list of projects that are known at this time to be performed in the City of East Grand Forks concurrent with the Phase 1 Levee contract are listed below with the estimated completion dates and Contractors performing the work, where known.

PROJECT	CONTRACTOR	ESTIMATED COMPLETION DATE
1999 City Project No. 5 - Master Lift	Wanzek	July 2001
1999 City Project No. 10 - Watermain	Holweger	October 2001
1999 City Project No. 13 - Sanitary Sewer	Holweger	October 2001
2001 City Project No. 2 - Utility Relocates		October 2001
2000 City Project No. 1 - Bygland Road		November 2001

2000 AJ No. 3 - 5th Avenue NW	Valley Contracting	November 2001
2001 City Project No. 3 - Paving		July 2002
US TH 2		November 2002
American Crystal Sugar Outfall-Casing Pipe Extension		Summer 2001

In addition to the projects listed above, there are two flood control projects that will be performed in Grand Forks, North Dakota concurrent with this contract, English Coulee Diversion and Grand Forks Phase 1 Levees.

3.7 GOVERNMENT-FURNISHED EQUIPMENT

3.7.1 General

The work of this contract includes installing equipment furnished by the Government. The Government-furnished equipment is listed below. The Contractor shall be responsible for loading and unloading, transporting, installing, and testing the Government-furnished equipment. The Government-furnished equipment shall be transported to the project site from the storage location. The equipment will be available no later than the dates listed with each item below.

3.7.1.1 Storage Location and Contact

The Government furnished equipment will be stored at the water treatment facility at the address listed below. The storage area is in a locked facility. The Contractor shall coordinate with the Contracting Officer's Representative to arrange access to the Government furnished equipment.

503 South 4th Street
Grand Forks, ND 58201

3.7.1.2 Government-Furnished Equipment List

Government furnished equipment is listed below:

Furnished Item	Quantity	Equipment Availability Date
A. Stormwater Pumps and Accessories listed below will be supplied by, KSB pumps provided by Quality Flow Systems Inc., 800 6th Street NW, New Prague, MN 56701.		
1. Stormwater Pumps, 6,000 GPM including discharge elbow and 50 feet of power and control cable	5	Aug. 30, 2001
2. Stormwater Pumps, 3,000 GPM including discharge elbow and 50 feet of power and control cable	7	Aug. 30, 2001
3. Sump Pumps, 1,000 GPM	3	Aug. 30, 2001

including discharge elbow and 50 feet of power and control cable		
4. Sump Pumps, 500 GPM including discharge elbow and 50 feet of power and control cable	2	Aug. 30, 2001
5. The pump guide system and electronic interface module will be furnished for each pump	1 per pump	Aug. 30, 2001
6. Pump Access Hatches (for all stormwater pumps, sump pumps and extra pump bays)	20	Aug. 30, 2001

B. Generator Sets and Transfer Switches listed below will be supplied by Onan Corporation, 1400 73rd Avenue NE, Minneapolis, MN 55432.

7. Engine Generator Packages with Skid Mounted Fuel Storage Sub-bases	5	Sept. 30, 2001
8. Transfer Switches	5	Sept. 30, 2001

C. Pump Controller Systems listed below will be supplied by Instrument Control Systems Inc., 13005 16th Avenue N., Plymouth, MN 55441.

9. Combination Motor Starters (One/pump)	17	Sept. 30, 2001
10. Controller Packages including SCADA	5	Sept. 30, 2001
11. Level Sensor Packages	5	Sept. 30, 2001

3.7.2 Delivery and On-Site Storage

Equipment shall be inspected for damage, loaded, transported, and unloaded with a minimum of handling. The Contractor shall notify the Contracting Officer of any damaged equipment prior to loading and transporting from the storage location. The equipment shall not be stored directly on the ground and shall be protected from any environment that would result in damage or deterioration to the equipment. The Contractor shall not remove any equipment from the Government storage facility unless installation in the pump stations is scheduled to occur within 15 calendar days of removing the Government furnished equipment from the storage facility. The Contractor shall complete installation of the Government furnished equipment within 15 calendar days of removal from the storage facility.

3.8 SHORING

3.8.1 General

At locations where shoring is not specifically required by the contract documents to safeguard adjacent structures, the Contractor may at its own

option employ shoring for protecting work areas within excavations in lieu of performing excavation to safe and stable side slopes. The Contractor shall construct all shoring required in performing the excavations. Shoring shall be constructed in accordance with the safety requirements of EM 385-1-1.

3.8.2 Responsibility

The Contractor shall be responsible for design and maintenance of all shoring which the Contractor proposes to install. Shoring plan and design computations for all shoring used shall be submitted in accordance with SECTION 01330: SUBMITTAL PROCEDURES at least 30 days prior to installation.

3.8.3 Removal

Unless otherwise authorized, all sheeting and bracing shall be removed when backfill is completed.

3.9 DEWATERING OPERATIONS

3.9.1 Scope

The Contractor shall design, furnish, install and operate dewatering systems in the execution of the contract work. The work involves the drawdown of water table and construction of temporary barriers (small cofferdams, earth dikes, sheeting, or other satisfactory types of barriers) to protect against the prevailing river stages and to permit, where specified or shown, placement of concrete, utilities, and fill in the dry.

3.9.2 Payment

No separate payment will be made for dewatering on this project and compensation for all dewatering operations will be included in the respective contract items to which the work pertains.

3.9.3 Requirements

Control of groundwater shall be accomplished in a manner that will provide suitable working conditions for construction, preserve the strength of the foundation soils, will not cause instability of excavations, and will not result in damage to existing structures. Suitable working conditions for construction will provide a dry or moist subgrade free of standing, percolating, or running water during placement and curing of concrete, and placement and compaction of backfill. Where necessary to these purposes, the water level shall be lowered in advance of excavation utilizing wells, wellpoints, or similar methods. For structure foundations, the water level (as measured in piezometers) shall be maintained a minimum of 2 feet below the prevailing excavation level.

3.9.3.1 Design

If conditions warrant, and if not otherwise specified in the contract documents, dewatering may consist of collection in sumps or trenches, and open pumping. Sumps, trenches and running water shall not jeopardize

erosion or ground loss near foundations, pipes, or other structures. Open pumping will not be permitted if it results in boils, seepage in concrete placement areas, loss of fines, softening of the ground, instability of slopes, or interference with orderly progress of the construction.

3.9.3.2 Regulations

Compliance with all regulations shall be incidental to the dewatering work. Disposal of water shall be in accordance with SECTION 01410: ENVIRONMENTAL PROTECTION and all applicable regulations. Dewatering water may be discharged through the City's storm water system. Well abandonment shall seal aquifers and confining layers in compliance with environmental regulations and permits.

3.9.3.3 Operation

Upon installation and commencement of dewatering operations, the system shall be operated continuously (24 hours/day, 7 days/week) until the structure and backfill are completed to the groundwater elevation. The Contractor shall be responsible for maintaining the system.

3.9.3.4 Removal

Upon completion of the work, well casing and screens shall be withdrawn, and all equipment shall be removed (including related temporary cofferdams, shoring, etc.)

3.9.4 Geologic and Hydrologic Information

Ground water elevations shown on the boring logs are those encountered at the time the borings were taken. Because groundwater elevations are dependent upon hydrologic conditions, variations in the water table should be expected. For work near the Red River of the North, refer to the hydrographs included with the contract drawings. It shall be the Contractors responsibility to perform the necessary dewatering operations irrespective of the water elevations at the time of the work. However, nothing in this clause prohibits the Contractor from receiving a time extension under the Default clause, the Time Extensions for Unusually Severe Weather clause, or any other clause in this contract.

3.9.5 Specific Requirements for Wells

3.9.5.1 Screens

Wells and wellpoints shall be installed with suitable screens and filters so that continuous pumping of fines does not occur. Pumps shall discharge into a settling tank to check for movement of sand. Wells shall be sealed in accordance with State Health Department requirements.

3.9.5.2 Setback

The following criteria shall be followed to the maximum extent possible. Where permanent site features restrict placement of dewatering devices, the Contracting Officer will allow a variance. Wellpoints shall be located a

minimum horizontal distance away from structures (existing and proposed) equal to the depth of penetration below foundation elevation. Wells larger than 3 inches diameter shall be located a minimum horizontal distance away from structures equal to the depth of penetration below foundation elevation plus half the depth of penetration above foundation elevation.

3.9.5.3 Roads and Levees

Wells larger than 3-inches diameter shall not be jetted through roadway and levee embankments. Wells larger than 3-inches diameter located on the up-gradient side of levees, dikes, dams or floodwalls shall be screened without a gravel filter pack. These wells shall be abandoned by plugging the hole with a cement-bentonite grout. The screens shall include a loose end cap to allow removal of screen and casing without hole collapse.

3.9.6 Dewatering Plan

At least 30-calendar days prior to commencing work on the installation or construction of dewatering protection, the Contractor shall submit for review by the Contracting Officer prints showing plans and details of the type of construction, including shoring proposed for installation at each location. The design shall be in accordance with sound engineering practice as approved. This submittal data shall include computations covering the analysis and design layout, proposed methods of protection of construction work that would be subject to exposure to channel flows exceeding the dewatering protection capacity, type and spacing of dewatering devices, number and size of pumps and other equipment, together with a description of the installation and operating procedures, including relationship to the construction operations. The plan shall be reviewed and signed by a Registered Professional Engineer. The plan shall include the following items:

1. layout (including the relationship to site improvements and construction operations)

2. type, sizes, depth and spacing of dewatering devices

3. number and capacity of pumps

4. design assumptions, analysis methods, and calculations
   4A. justification for pump capacity

   4B. justification for slot size on screens

   4C. justification for screen intake area

   4D. justification for filter pack gradation

5. description of installation equipment

6. description of operating procedures

7. description of discharge point (weirs, sedimentation basin, etc.)

8. type and location of monitoring equipment

9. removal and abandonment plans

3.9.7 Liability

Government review of the proposed dewatering system will not relieve the Contractor of full responsibility for the adequacy of the dewatering operations. The Contractor shall be responsible for dewatering effects on adjacent properties, including but not limited to blockage of easements, erosion or sedimentation of ditches, and encroachment onto private property by flooding from pump outlets and sedimentation basins.

3.9.8 Related Work

Shoring, trench support systems, cofferdams and diversion structures shall be coordinated with the dewatering effort to provide safe and reliable conditions.

3.9.9 Surface Water Management During Construction

The Red River of the North and Red Lake River are prone to experience extremely high flood stages of relatively long duration. The Contractor shall be responsible for monitoring local weather conditions and flow conditions in order to anticipate flooding conditions prior to their occurrence. The Contractor shall keep the Contracting Officer informed regarding all flooding conditions on the project.

The Contractor should satisfy itself before submitting its bid as to hazards that arise from weather conditions and flooding. Red River of the North rating curves and hydrographs are included in the contract drawings.

3.10 SURVEYS

3.10.1 Field Layout

The Contractor shall layout the work from the Government established bench marks in accordance with SECTION 00800: CONTRACT CLAUSE LAYOUT OF WORK. The construction of each feature of work shall follow the alignments as indicated on the drawings. The Contractor shall have in place, at least 7 calendar days prior to commencing construction operations, sufficient stakes and markings to enable the Contracting Officer to observe the field layout of the alignment and limits of each feature of work. For each feature of work, these stakes shall define areal limits such that the Contracting Officer can easily determine, without additional surveys, if alignment and/or limit adjustments need to be made. For embankments, levees, and similar work, these stakes shall define centerline, stationing, outermost fill/cut limits, and work limits. For structures and similar work, the corners shall be staked. General site work shall be staked to define staging areas, storage areas, and other area limits as directed. The Contracting Officer may waive these requirements for certain areas. The layout shall be sufficient for the Contracting Officer to mark trees, vegetation and other features to be left undisturbed. No work shall take place without approval of field layout by the Contracting Officer.

3.10.1.1 Alignment Changes

The Government reserves the right to make changes in the alignment of any feature of work as may be found necessary during the course of the contract. If it becomes necessary, through no fault of the Contractor, equitable adjustment for completed work will be made. No alignment changes or abandonment shall take place without prior written notice from the contracting Officer.

3.10.2 Utility As-builts

An as-built field survey of all utilities shall be conducted after installation to determine the final locations and elevations of all utility structures such as manholes, catch basins, hydrants, gate valves, cleanouts, service connections, and other special controls or structures. Final elevations shall be determined for all sewer inverts and castings. Locations shall be shown using the same convention as the original contract drawings(typically stationing and offset from known centerline). If no convention is used in the contract drawings, locations shall be tied to at least 2 permanent landmarks.

3.10.3 Quantity Surveys

The Contractor shall perform quantity and tolerance verification surveys for all features of work in accordance with SECTION 00800: SPECIAL CONTRACT REQUIREMENTS: QUANTITY SURVEYS--ALTERNATE I. Unless changed by the Contracting Officer, the Contractor shall provide cross sections at 100 foot intervals to verify the required section. Areas where payment for material is specified by volume shall be surveyed by the Contractor, prior to commencement of construction of each feature and upon completion of each feature, in enough detail to accurately determine quantities and verify the required section. The Contractor shall also provide a copy of the survey notes and cross sections to the Contracting Officer within 10 days after completion of the survey.

3.11 PRECONSTRUCTION DAMAGE SURVEY

Prior to the start of contract construction operations in an area, the Contractor shall conduct preconstruction property damage surveys. These surveys shal be performed initially and repeated later as required.

3.11.1 Contacting

The Contractor shall have both letter and personal contact with residents, institutional operators, and/or business establishments that are within the project work limits or near enough for ground and noise vibrations to be considered objectionable. This contact shall be made prior to beginning potential vibration-producing activities. The Contractor shall submit a list of those individuals and companies contacted prior to vibration-producing activities.

3.11.2 Preconstruction Structure Surveys

Preconstruction surveys shall be performed by qualified specialists, as approved, and retained by the Contractor for observing the condition of existing structures in the vicinity of the work at required intervals. Each survey shall include all existing structures located entirely or partially within 100 feet of the proposed work limits. Each structure shall be completely surveyed even if only part of the structure is located within the survey limits. The preconstruction survey shall produce a report including diagrams as necessary of accessing all existing foundations, floors, walls, partitions, and roofs as determined by the Contracting Officer. The report shall show and describe existing interior and exterior cracks, including elevations and photographs and video tapes of cracks/damage, and such other data as applicable to locate and define the amount and extent of existing damage. All existing structure deficiencies, major or minor, shall be identified and recorded. Crack displacement monitoring gages shall be installed as appropriate in structures within a radius of 100 feet of the contract work in order to help verify distress if any should develop. Crack displacement monitoring gages shall be read by the Contractor on a weekly basis.

At a minimum the following structures shall be surveyed:

1) VFW Veterans Memorial Arena, Reach 3, near Bygland Road and 4th Street SE.
2) The Eagles Club, Reach 3 at 3rd Avenue and 1st Street SE.
3) Fire Station, Reach 3, near Bygland Road and 5th Avenue SE.

3.11.3 Preconstruction Condition Surveys

The Contractor shall photograph and video tape facilities within the work limits, including, but not limited to, roads,borrow areas, side walks, trees, shrubs, and lawns prior to working in an area in order to document the preconstruction conditions. The Contractor shall also take photographs and video tape the conditions in the same areas upon completion of the project.

3.11.4 Preconstruction Survey Reports

The Contractor shall prepare and submit to the Contracting Officer, prior to the start of contract construction work/activities at each work site, two bound copies of each preconstruction damage report containing surveys, photographs, and video tapes, sketches and diagrams, field notes taken, descriptions and reports, all signed and witnessed by the persons involved in the survey. Thereafter, as contract work progresses, the Contractor shall resurvey as often as necessary, as required by the Contracting Officer, in order to verify the adequacy of the Contractor's construction methods for prevention of damage and to obtain sufficient evidence for use in defense against possible claims for damage from third parties. Data obtained by the Contractor from each resurvey shall be submitted to the Contracting Officer within 5 calendar days after the Contractor has obtained it.

3.11.5 Contractor Responsibility

Nothing contained herein shall relieve the Contractor of responsibility for claims arising from its construction operations. Failure to inspect any structure, whether or not required by the contract documents, or inadequacy of the inspections shall not relieve the Contractor of its responsibilities.

-- End of Section --

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SECTION 01090

SOURCES FOR REFERENCE PUBLICATIONS

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SECTION 01090

SOURCES FOR REFERENCE PUBLICATIONS
04/01

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the sponsoring organization, e.g. ASTM B 564 Nickel Alloy Forgings. However, when the sponsoring organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the organizations whose publications are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the sponsoring organization should be ordered from the source by title rather than by number.

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Waldorf, MD 20604
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PLUMBING AND DRAINAGE INSTITUTE (PDI)

45 Bristol Dr., Suite 101.
South Easton, MA 02375
Ph: 508-230-3516
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PLUMBING AND PIPING INDUSTRY COUNCIL (PPIC)

501 Shatto Place, Suite 402
Los Angeles, CA 90020
Ph: 310-381-3040
Fax: 213-487-3880

THE SOCIETY FOR PROTECTIVE COATINGS (SSPC)

40 24th Street, 6th Floor
Pittsburgh, PA 15222-4656
Ph: 412-281-2331
Fax: 412-281-9992
Internet: www.sspc.org
NOTE: SSPC documents, except as noted otherwise, are available

only as a part of the 1995 Steel Structures Painting Manual, 7th Edition @ $115.00.

STEEL DOOR INSTITUTE (SDOI)

30200 Detroit Rd.
Cleveland, OH 44145-1967
Ph: 216-899-0010
Fax: 216-892-1404

STEEL JOIST INSTITUTE (SJI)

3127 Tenth Ave., North Ext.
Myrtle Beach, SC 29577-6760
Ph: 843-626-1995
Fax: 843-626-5565

STEEL WINDOW INSTITUTE (SWI)

1300 Sumner Ave.
Cleveland, OH 44115-2851
Ph: 216-241-7333
Fax: 216-241-0105

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04/01

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SECTION 01270

MEASUREMENT AND PAYMENT

04/01

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Quantity Surveys; FIO.

The Quantity Surveys are described in SECTION 01000: GENERAL: SURVEYS.

1.2 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.2.1 Preconstruction Damage Survey

1.2.1.1 Payment

Payment will be made for costs associated with operations necessary for conducting preconstruction damage surveys. Work shall include, but not be limited to contacting property owners, photography, video photography, surveys, instrumentation, and preparation of reports.

1.2.1.2 Unit of Measure

Unit of measure: lump sum.

1.2.2 Demolition

1.2.2.1 Payment

Payment will be made for costs associated with operations necessary for demolition and removal of existing structures. Items to be demolished includes, but is not limited to storm sewer structures and piping, bituminous pavement, concrete pavement, concrete curb and gutter, foundations and slabs from removed homes, utility services to removed homes,and watermain and sanitary sewer piping. Debris shall be taken off site for proper disposal.

1.2.2.2 Unit of Measure

Unit of measure: lump sum.

1.2.3 Junction Manhole Structures

1.2.3.1 Payment

Payment will be made for the costs associated with operations necessary for construction of five junction manhole structures. Payment will be made separately for each junction manhole structure. Work shall include, but is not limited to excavation, concrete, reinforcement, formwork, backfill, grating and other miscellaneous metals, and temporary shoring and dewatering as needed.

1.2.3.2 Unit of Measure

Unit of measure: lump sum.

1.2.4 Pump Station Structures: K-7, K-10, L-1, and L-12

1.2.4.1 Payment

Payment will be made for the costs associated with operations necessary for construction of pump stations. Payment will be made separately for each pump station structure. Work shall include, but is not limited to excavation, concrete, reinforcement, formwork, backfill, grating,ladders, trash racks, miscellaneous metals, siding, roofing, and temporary shoring, dewatering, and traffic control as needed.

1.2.4.2 Unit of Measure

Unit of measure: lump sum.

1.2.5 Pump Station/Gatewell Structure: K-12

1.2.5.1 Payment

Payment will be made for the costs associated with operations necessary for construction of the pump station/gatewell structure. . Work shall include, but is not limited to excavation, concrete, reinforcement, formwork, backfill, grating,ladders, trash racks, stoplogs, miscellaneous metals, metal sheet piling, brick, roofing, and temporary shoring, dewatering, and traffic control as needed.

1.2.5.2 Unit of Measurement

Unit of measure: lump sum.

1.2.6 Gatewell Structures: K-7, K-10, L-1, L-2

1.2.6.1 Payment

Payment will be made for the costs associated with operations necessary for construction of the pump station/gatewell structure. Work shall include, but is not limited to excavation, concrete, reinforcement, formwork, backfill, grating,ladders, trash racks, stoplogs, miscellaneous metals, metal sheet piling, brick, roofing, and temporary shoring, dewatering, and traffic control as needed.

1.2.6.2 Unit of Measurement

Unit of measure: lump sum.

1.2.7 Stoplog Closure Structures

1.2.7.1 Payment

Payment will be made for the costs associated with operations necessary for construction of the stoplog closure structures. Work shall include, but is not limited to excavation, concrete, reinforcement, formwork, backfill, miscellaneous metals, stoplogs, struts, bracing, metal sheet piling, stone veneer, lighting fixtures, electrical conduit and receptacles, and temporary shoring, dewatering, and traffic control as needed.

1.2.7.2 Unit of Measurement

Unit of measure: lump sum.

1.2.8 Electrical

1.2.8.1 Payment

Payment will be made for the costs associated with providing electrical facilities for pump stations as shown and specified.

1.2.8.2 Unit of Measurement

Unit of measure: lump sum.

1.2.9 Electrical Services

1.2.9.1 Payment

Payment will be made for the costs associated with providing electrical service to each pump station location as specified. The Contractor shall reimburse the City of East Grand Forks for the costs associated with providing the electrical service at each pump station location.

1.2.9.2 Unit of Measure

Unit of measure: lump sum.

1.2.10 Mechanical

1.2.10.1 Payment

Payment will be made for the costs associated with providing mechanical facilities for the pump stations as shown and specified including but not limited to loading, transporting, delivering, installing and testing government supplied pumps, providing monorails and hoists, discharge piping, flap valves, and heating system.

1.2.10.2 Unit of Measurement

Unit of measure: lump sum.

1.2.11 Sluice Gate

1.2.11.1 Payment

Payment will be made for the costs associated with operations necessary to provide the sluice gates for each pump station and gatewell structure as shown and specified, including but not limited to, sluice gates, thimbles, manual operators, and hydraulic portable operators.

1.2.11.2 Unit of Measurement

Unit of measure: lump sum for each structure that requires sluice gates.

1.2.12 L-2 Inlet Structures

1.2.12.1 Payment

Payment will be made for the costs associated with operations necessary for construction of inlet structures. Payment will be made separately for each inlet structure. Work shall include, but is not limited to excavation, concrete, reinforcement, formwork, backfill, grating and other miscellaneous metals, and temporary shoring and dewatering as needed.

1.2.12.2 Unit of Measurement

Unit of measure: lump sum.

1.2.13 Clearing and Grubbing

1.2.13.1 Payment

Payment will be made for the costs associated with operations necessary to clear and grub within the work limits shown. Clearing and grubbing required for Reach 2 will not be measured for payment and costs, therefore, shall be included in the item to which the work pertains for Reach 2. Work shall include, but not be limited to, clearing, grubbing, and disposing of clearing and grubbing debris. No allowances will be made for clearing and

grubbing outside the limits of construction unless authorized.

1.2.13.2 Unit of Measurement

Unit of measure: lump sum.

1.2.14 Stripping

1.2.14.1 Payment

Payment will be made for the costs associated with operations necessary to perform stripping withing the work limits shown. Stripping will not be measured for payment. Work shall include, but not be limited to stripping vegetation, topsoil, and organic material within the limits shown, stockpiling, and disposing of excess stripped materials . No allowances will be made for stripping outside the limits of construction unless authorized.

1.2.14.2 Unit of Measurement

Unit of measurement: lump sum.

1.2.15 Topsoil

1.2.15.1 Payment

The placement of topsoil in areas shown to be seeded or sodded. Work includes, but is not limited to transporting, placement of topsoil from stripping operations, placement of imported topsoil, and soil amendments. Topsoil for disturbed areas outside of work limits and haul roads is incidental to the price bid. No allowances will be made for topsoil outside the limits of construction unless authorized.

1.2.15.2 Unit of Measurement

Unit of measure: lump sum.

1.2.16 Seeding Mixture Class 1

1.2.16.1 Payment

The establishment of turf in areas shown to be seeded with Class 1 seed mixture. Work includes, but is not limited to seedbed preparation, providing seed, mulch, and maintenance of turf, including mowing. Restoration of disturbed areas outside of work limits and haul roads is incidental to the price bid. No allowances will be made for seeding outside the limits of construction unless authorized.

1.2.16.2 Unit of Measurement

Unit of measure: lump sum.

1.2.17 Seeding Mixture Class 2

1.2.17.1 Payment

The establishment of turf in areas shown to be seeded with Class 2 seed mixture. Work includes, but is not limited to seedbed preparation, providing seed, mulch, and care of turf. Restoration of disturbed areas outside of work limits and haul roads is incidental to the price bid. No allowances will be made for seeding outside the limits of construction unless authorized.

1.2.17.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.18 Seeding Mixture Class 2-WF

1.2.18.1 Payment

The establishment of turf in areas shown to be seeded with Class 2-WF seed mixture. Work includes, but is not limited to seedbed preparation, providing seed, mulch, and care of turf. Restoration of disturbed areas outside of work limits and haul roads is incidental to the price bid. No allowances will be made for seeding outside the limits of construction unless authorized.

1.2.18.2 Unit of Measure

Unit of measure: lump sum.

1.2.19 Seeding Mixture Class 3

1.2.19.1 Payment

The establishment of turf in areas shown to be seeded with Class 3 seed mixture. Work includes, but is not limited to seedbed preparation, providing seed, mulch, and care of turf. Restoration of disturbed areas outside of work limits and haul roads is incidental to the price bid. No allowances will be made for seeding outside the limits of construction unless authorized.

1.2.19.2 Unit of Measure

Unit of measure: lump sum.

1.2.20 Geotechnical Monitoring System

1.2.20.1 Payment

Payment will be made for the costs associated with operations necessary for geotechnical monitoring systems. Work includes, but is not limited to, providing, installing, and surveying settlement gates, and coordinating with the Contracting Officer's Representative overseeing the installation of geotechnical monitoring systems as necessary.

1.2.20.2 Unit of Measure

Unit of Measure: lump sum.

1.2.21 Jacked Interior Drainage

1.2.21.1 Payment

Payment will be made for the costs associated with operations necessary for construction of the interior drainage system indicated to be installed by jacking techniques. Work includes, but is not limited to providing manholes, catch basins, covers and frames, riprap, riprap bedding, geotextile filter, separation geotextile, storm sewer piping, casing pipe, sand and grout to fill the casing pipe, excavation and backfill, and shoring and dewatering as necessary. Restoration of items damaged during construction of jacked interior drainage facilities including, but not limited to roads, curb and gutter, and driveways is incidental to the price bid.

1.2.21.2 Unit of Measurement

Unit of measure: lump sum.

1.2.22 Trenched Interior Drainage

1.2.22.1 Payment

Payment will be made for the costs associated with operations necessary for construction of the interior drainage system except for the storm sewer pipes indicated to be installed by jacking techniques. Work includes, but is not limited to providing culverts, manholes, catch basins, covers and frames, riprap, riprap bedding, geotextile filter, separation geotextile, storm sewer piping, excavation and backfill, and shoring and dewatering as necessary. Restoration of items damaged during construction of trenched interior drainage facilities including, but not limited to roads, curb and gutter, and driveways is incidental to the price bid.

1.2.22.2 Unit of Measurement

Unit of measure: lump sum.

1.2.23 Street Replacement

1.2.23.1 Payment

Payment will be made for the costs associated with operations necessary for replacing existing roads at 3rd Avenue, James Avenue, and 4th Street. Work includes, but is not limited to surveying, compaction of subgrade, providing aggregate and concrete base, concrete pavement, pavement markings, and concrete curb and gutter. Restoration of driveways, driveway culverts, fences, and field entrances are incidental to the price bid.

1.2.23.2 Unit of Measurement

Unit of measure: lump sum.

1.2.24 Sanitary Sewer Modification

1.2.24.1 Payment

Payment will be made for the costs associated with operations necessary for modifying the gravity sanitary sewer at 3rd Avenue in Reach 3 including, but not limited to, excavation and backfill, granular fill, select granular fill, providing piping, gate valves, gate valve manholes, steel casing and sand and grout for filling the casing. Restoration of driveways, driveway culverts, and fences are incidental to the price bid.

1.2.24.2 Unit of Measurement

Unit of measure: lump sum.

1.2.25 Relocated Access Road

1.2.25.1 Payment

Payment will be made for the costs associated with operations necessary for removing the existing gravel access road at the Arena Trailhead site in Reach 3 and constructing a bituminous access road. Work includes, but is not limited to removing the access road, excavation, compaction of subgrade, providing aggregate base, bituminous pavement, pavement markings, and concrete curb and gutter. Restoration shall be incidental to the price bid.

1.2.25.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.26 Access Road Realignment (Sherlock Park)

1.2.26.1 Payment

Payment will be made for the costs associated with operations necessary for removing and realigning the existing access road in Sherlock Park in Reach 1. Work includes, but is not limited to removing the access road, excavation, compaction of subgrade, providing aggregate base, bituminous pavement, pavement markings, and concrete curb and gutter. Restoration shall be incidental to the price bid.

1.2.26.2 Unit of Measurement

Unit of measure: lump sum.

1.2.27 Gravel Alley

1.2.27.1 Payment

Payment will be made for the costs associated with operations necessary for reconstructing the existing gravel alley in Reach 1 as shown. Restoration shall be incidental to the price bid.

1.2.27.2 Unit of Measurement

Unit of measure: lump sum.

1.2.28 Road Raises

1.2.28.1 Payment

Payment will be made for the costs associated with operations necessary for raising the profile of existing roads over new structures. Roads to be raised include a bituminous road at 12th Street NW in Reach 1 and Folson Court in Reach 3. Work includes, but is not limited to construction of temporary road bypass or cross-overs, traffic control, road embankment, and replacement or installation of signage and pavement markings as needed. Work may include bracing for cross-overs, restoration of driveway, driveway culverts, fences, and are incidental to the price bid.

1.2.28.2 Unit of Measurement

Unit of measure: lump sum.

1.2.29 Signage

1.2.29.1 Payment

Payment will be made for costs associated with operations necessary for construction and installation of signage and lettering, which includes performing required fabrication, mounting, and other incidental operations.

1.2.29.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.30 Trees

1.2.30.1 Payment

Payment for trees will be made for costs associated with furnishing, installing, mulching, watering, and maintaining the trees shown and specified.

If the Government requires additional materials and work beyond that shown or specified in the Contract, the Contractor will receive compensation for additional materials and work in accordance with the clause CHANGES.

1.2.30.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.31 Shrubs

1.2.31.1 Payment

Payment for shrubs will be made for costs associated with furnishing, installing, mulching, watering, and maintaining the shrubs shown and specified.

If the Government requires additional materials and work beyond that shown or specified in the Contract, the Contractor will receive compensation for additional materials and work in accordance with the clause CHANGES.

1.2.31.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.32 Site Grading

1.2.32.1 Payment

Payment for site grading will be made for costs associated with operations necessary for rough grading the trailhead sites from the existing grade to the new grades shown, including but not limited to excavation, placement of fill, and other incidental operations.

1.2.32.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.33 Bituminous Parking Lot

1.2.33.1 Payment

Payment will be made for costs associated with operations necessary to construct bituminous parking lots. Work includes, but is not limited to compaction of subgrade, providing aggregate base, bituminous pavement, pavement markings, curbs and gutters, and incidental items.

1.2.33.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.34 Restroom Structure

1.2.34.1 Payment

Payment will be made for costs associated with operations necessary for the construction of the restroom structures. Work includes, but is not limited to structural excavation and backfill, granular fill, reinforced concrete foundations and slabs, masonry block walls, structural steel, roof systems, doors, windows, skylights, architectural interior and exterior treatments, piping, plumbing fixtures, water meter, attached drinking fountains, exhaust fans, exhaust grill, heaters, thermostats, water heaters, water storage tank, toilet room accessories, electrical raceways, conductors, enclosures, grounding, lighting, receptacles,occupancy sensor, hand dryers, and switches, and incidental items. The Contractor shall compensate the City of East Grand Forks for the costs of providing electrical service at each restroom structure.

1.2.34.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.35 Kiosk

1.2.35.1 Payment

Payment will be made for costs associated with operations necessary for construction and installation of wood kiosks, which includes but is not limited to performing required fabrication, mounting, and other incidental operations.

1.2.35.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.36 Playground

1.2.36.1 Payment

Payment will be made for costs associated with operations necessary for construction of playgrounds, including but not limited to performing required excavation, installation of containment edging, pea gravel, play structures, resilient surfacing, subdrainage system, and other incidental operations.

1.2.36.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.37 Park Shelter - Large

1.2.37.1 Payment

Payment will be made for costs associated with operations necessary for construction of park shelters, including but not limited to excavation, installation of reinforced concrete footings, prefabricated shelters, column veneer, electrical recepticles, lighting, and incidental items.

1.2.37.2 Unit of Measurement

Unit of measure: lump sum.

1.2.38 Park Shelter - Small

1.2.38.1 Payment

Payment will be made for costs associated with operations necessary for construction of park shelters, including but not limited to excavation, installation of reinforced concrete footings, prefabricated shelters, column veneer, electrical recepticles, lighting, and incidental items.

1.2.38.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.39 Lighting

1.2.39.1 Payment

Payment will be made for costs associated with performing all operations necessary for construction of exterior lighting systems. Work includes, but is not limited to excavation, trenching, backfilling, conductors, enclosures, concrete foundations for lighting, power distribution, light poles, fixtures, floodlights, control centers and incidental items.

1.2.39.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.40 Storm Service, 12" RCP

1.2.40.1 Payment

Payment will be made for costs associated with operations necessary for the construction of the storm sewer system. Work includes, but is not limited to furnishing and installating rcp piping and storm drainage structures. The work shall also include required pavement removals, removal of curb and gutter, excavation, connections to existing sewer or storm drainage structures, backfilling, restoration of roads, driveways, parking areas, sidewalks, curbs and gutters, turfed areas, and incidental items.

1.2.40.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.41 Sanitary Service, 6" PVC

1.2.41.1 Payment

Payment will be made for costs associated with operations necessary for the construction of the sewer system. Work includes, but is not limited to installation of pvc service piping and required insulation for piping. The work shall also include required pavement removals, removal of curb and gutter, excavation, connections to existing sewer main, backfilling, granular fill, select granular fill, restoration of roads, driveways, parking areas, sidewalks, curbs and gutters, turfed areas, and incidental items.

1.2.41.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.42 Water Service, 2" Copper

1.2.42.1 Payment

Payment will be made for costs associated with operations necessary for the construction of the waterline system. Work includes, but is not limited to installation of copper water line and service stop and box. The work shall also include required pavement removals, removal of curb and gutter, excavation, connections to existing water main and new structure, backfilling, restoration of roads, driveways, parking areas, sidewalks, curbs and gutters, turfed areas, and incidental items.

1.2.42.2 Unit of Measurement

Unit of Measure: lump sum.

1.2.43 Sanitary Forcemain Relocation

1.2.43.1 Payment

Payment will be made for costs associated with operations necessary for the relocation of existing forcemains. Work includes, but is not limited to providing piping, fittings, valves, gate valve manholes, bypass pumping, and coordination with the City of East Grand Forks. The work shall also include required excavation, connections to existing forcemain, backfilling, granular fill, select granular fill, restoration of roads, driveways, parking areas, sidewalks, curbs and gutters, turfed areas, and incidental items.

1.2.43.2 Unit of Measurement

Unit of measure: lump sum.

1.2.44 Overlook Wall

1.2.44.1 Payment

Payment will be made for costs associated with operations necessary for construction of cast-in-place overlook wall, which includes performing required excavation, compaction, placement of reinforced concrete, providing specified stone veneer and incidental items.

1.2.44.2 Unit of Measurement

Unit of measure: lump sum.

1.2.45 Install Engine Generator Set

1.2.45.1 Payment

Payment will be made for the costs associated with providing mechanical and electrical facilities for each pump station as shown and specified including, but not limited to loading, transporting, delivering, installing, and testing Government supplied engine generator sets, exclusive of generator manufacturer's representative services which will be supplied under a separate contract by the Government. Work associated with the electrical load bank shall not be included in the payment for this item

and shall be paid for as part of the Furnish and Install Load Bank item.

1.2.45.2 Unit of Measurement

Unit of measure: lump sum.

1.3 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the BIDDING SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.3.1 Excavation

1.3.1.1 Payment

Payment will be made for costs associated with excavation for the bituminous trails and bituminous parking lots. Disposition of excess excavated material and unsuitable and frozen materials to excess disposal fill will be incidental to the price bid for excavation. Excavation does not include excavation for interior drainage, excavation for structures, excavation for utilities, off-site borrow excavation and any other excavation where measurement and payment is specified elsewhere.

1.3.1.2 Measurement

Excavation shall be measured for payment by the cubic yard, in the original position, using the average-end-area method based on the original ground lines as determined by the required survey and the lines and grade shown. Final surveys shall be used for any authorized over-depth excavation. The Contractor shall be responsible to perform the necessary quantity surveys. Except for authorized over-depth excavation materials removed outside the lines and grades shown will not be measured for payment. Material removed outside the lines and grades shown, but within the specified tolerance will not be measured for payment. Disposal fill will not be measured for payment. All costs therefore shall be included in the bid item to which the work pertains.

1.3.1.3 Unit of Measure

Unit of measure: cubic yard.

1.3.2 Levee Removal

1.3.2.1 Payment

Payment will be made for costs associated with excavation of existing levees, which includes performing required excavation, stockpiling of acceptable materials for levee construction, disposition of unacceptable

materials, and grading and restoration following completion of levee removal.

1.3.2.2 Measurement

Levee removal shall be measured for payment by the cubic yard, in the original position, using the average-end-area method based on original and final ground lines as determined by the required surveys. The Contractor shall be responsible to perform the necessary quantity surveys. The basis for payment will be cross sections of areas to be filled taken after clearing, grubbing, and stripping operations.

1.3.2.3 Unit of Measure

Unit of measure: cubic yard.

1.3.3 Select Impervious Fill

1.3.3.1 Payment

Payment will be made for the costs associated with the final placement and compaction of select impervious fill for the construction of the levees.

1.3.3.2 Measurement

Select impervious fill shall be measured for payment by the cubic yard and quantities will be determined by the average-end-area method. The basis for payment will be cross sections of areas to be filled taken after clearing, grubbing, and stripping operations or the placement of underlying impervious fill material, where applicable, and the theoretical cross sections of the embankments constructed within the specified tolerance. The Contractor shall be responsible to perform the necessary quantity surveys. Cross sections shall be performed at significant breaks in grade except that the maximum distance between cross sections shall not exceed 50 feet. Volumes occupied by structures and piping will not be included in the measurement of select impervious fill for payment.

1.3.3.3 Unit of Measure

Unit of measure: cubic yard.

1.3.4 Impervious Fill

1.3.4.1 Payment

Payment will be made for the costs associated with the final placement and compaction of impervious fill for the construction of the levees and bituminous trails.

1.3.4.2 Measurement

Impervious fill shall be measured for payment by the cubic yard and quantities will be determined by the average-end-area method. The basis

for payment will be cross sections of areas to be filled taken after clearing, grubbing, and stripping operations and the theoretical cross sections of the embankments constructed within the specified tolerance. The Contractor shall be responsible to perform necessary quantity surveys. Cross sections shall be performed at significant breaks in grade except that the maximum distance between cross sections shall not exceed 50 feet. Volumes occupied by structures and piping will not be included in the measurement of select impervious fill for payment.

1.3.4.3 Unit of Measure

Unit of measure: cubic yard.

1.3.5 Random Fill

1.3.5.1 Payment

Payment will be made for the costs associated with the final placement and compaction of random fill for the construction of the levees.

1.3.5.2 Measurement

Random fill shall be measured for payment by the cubic yard and quantities will be determined by the average-end-area method. The basis for payment will be cross sections of areas to be filled taken after clearing, grubbing, and stripping operations or the placement of underlying impervious fill or select impervious fill material, where applicable, and the theoretical cross sections of the embankments constructed within the specified tolerance. The Contractor shall be responsible to perform necessary quantity surveys. Cross sections shall be performed at significant breaks in grade except that the maximum distance between cross sections shall not exceed 50 feet. Volumes occupied by structures and piping will not be included in the measurement of select impervious fill for payment.

1.3.5.3 Unit of Measure

Unit of measure: cubic yard.

1.3.6 Inspection Trench

1.3.6.1 Payment

Payment will be made for costs associated with excavation, dewatering and backfilling inspection trenches with acceptable, compacted impervious material as specified and as shown. Stockpiling of acceptable material for later use and disposition of unacceptable materials will be incidental to the price bid for inspection trenches. Removal of utility services encountered during inspection trench operations shall be considered incidental.

1.3.6.2 Measurement

Inspection trenches will be measured for payment by the lineal foot.

Inspection trenches excavated beyond the limits shown on the drawings and not authorized by the Contracting Officer will not be measured for payment.

1.3.6.3 Unit of Measure

Unit of measure: lineal foot.

1.3.7 Bituminous Trail

1.3.7.1 Payment

Payment will be made for the costs associated with the operations necessary to construct the bituminous trail including, but not limited to bituminous placement and placement of aggregate base.

1.3.7.2 Measurement

Bituminous trail will be measured by the square yard in place within the limits indicated or directed. Bituminous trail constructed beyond the limits shown on the drawings and not authorized by the Contracting Officer will not be measured for payment.

1.3.7.3 Unit of Measure

Unit of Measure: square yard.

1.3.8 Permanent Bollards

1.3.8.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of bollards specified which includes performing required excavation, concrete footing, fabrication, mounting, and other incidental operations.

1.3.8.2 Measurement

Permanent bollards will be measured by the number of units constructed, complete, in-place.

1.3.8.3 Unit of Measure

Unit of measure: each.

1.3.9 Removable Bollards

1.3.9.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of removable bollards specified which includes performing required excavation, concrete footing, fabrication, mounting, and other incidental operations.

1.3.9.2 Measurement

Removable bollards will be measured by the number of units constructed, complete, in-place.

1.3.9.3 Unit of Measure

Unit of measure: each.

1.3.10 Concrete Paving

1.3.10.1 Payment

Payment will be made for the costs associated with the operations necessary to construct the concrete paving including, but not limited to excavation, placement of aggregate base, and concrete placement.

1.3.10.2 Measurement

Concrete paving will be measured by the square yard in place within the limits indicated or directed. Concrete pavement constructed beyond the limits shown on the drawings and not authorized by the Contracting Officer will not be measured for payment.

1.3.10.3 Unit of Measure

Unit of measure: square yard.

1.3.11 Concrete Pads

1.3.11.1 Payment

Payment will be made for the costs associated with the operations necessary to construct the concrete pads including, but not limited to excavation, placement of aggregate base, and concrete placement.

1.3.11.2 Measurement

Concrete pads will be measured by the square yard in place within the limits indicated or directed. Concrete pads constructed beyond the limits shown on the drawings and not authorized by the Contracting Officer will not be measured for payment.

1.3.11.3 Unit of Measure

Unit of measure: square yard.

1.3.12 Barbeque Grills - Large and Small

1.3.12.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of barbeque grills shown and specified which includes performing required fabrication, mounting, and other incidental operations.

1.3.12.2 Measurement

Barbeque grills of each size will be measured by the number of units of each type constructed completed, in-place.

1.3.12.3 Unit of Measure

Unit of measure: each.

1.3.13 Park Bench

1.3.13.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of bench specified which includes performing required fabrication, mounting, and other incidental operations.

1.3.13.2 Measurement

Park benches will be measured by the number of units of each type constructed completed, in-place.

1.3.13.3 Unit of Measure

Unit of measure: each.

1.3.14 Trash Receptacles

1.3.14.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of trash receptacles shown and specified which includes performing required fabrication, mounting, and other incidental operations.

1.3.14.2 Measurement

Trash receptacles will be measured by the number of units of each type constructed completed, in-place.

1.3.14.3 Unit of Measure

Unit of measure: each.

1.3.15 Bike Rack

1.3.15.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of bike racks shown and specified which includes performing required fabrication, mounting, and other incidental operations.

1.3.15.2 Measurement

Bike racks will be measured by the number of units of each type constructed completed, in-place.

1.3.15.3 Unit of Measure

Unit of measure: each.

1.3.16 Drinking Fountain

1.3.16.1 Payment

Payment will be made for costs associated with operations necessary for construction of drinking fountain, which includes performing required fabrication, painting, plumbing, and mounting. Costs for drinking fountains attached to restroom structure shall be included in the price bid for Restroom Structure.

1.3.16.2 Measurement

Drinking fountains will be measured by the number of units of each type constructed completed, in-place.

1.3.16.3 Unit of Measure

Unit of measure: each.

1.3.17 Picnic Table - ADA Portable

1.3.17.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of picnic table specified and shown which includes fabrication, mounting, and other incidental operations. The costs for concrete pads for picnic tables, where required,shall be included in the bid item to which the work pertains.

1.3.17.2 Measurement

Picnic table - ADA portable will be measured by the number of units of each type constructed completed, in-place.

1.3.17.3 Unit of Measure

Unit of measure: each.

1.3.18 Picnic Table - Square 3 Bench

1.3.18.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of picnic table specified and shown which includes fabrication, mounting, and other incidental operations. The costs

for concrete pads for picnic tables, where required,shall be included in the bid item to which the work pertains.

1.3.18.2 Measurement

Picnic table - Square 3 Bench will be measured by the number of units of each type constructed completed, in-place.

1.3.18.3 Unit of Measure

Unit of measure: each.

1.3.19 Picnic Table - Square 4 Bench

1.3.19.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of picnic table specified and shown which includes fabrication, mounting, and other incidental operations. The costs for concrete pads for picnic tables, where required,shall be included in the bid item to which the work pertains.

1.3.19.2 Measurement

Picnic table - Square 4 Bench will be measured by the number of units of each type constructed completed, in-place.

1.3.19.3 Unit of Measure

Unit of measure: each.

1.3.20 Sanitary Service, 8" PVC Main

1.3.20.1 Payment

Payment will be made for costs associated with operations necessary for providing the sanitary sewer main as shown and specified. Payment for sanitary main shall include, but not be limited to, excavation and backfill, providing sanitary main, connecting to existing sanitary sewer or structures, and items incidental to the main.

1.3.20.2 Measurement

Sanitary Service, 8" PVC Main shall be measured by the lineal foot of main installed, measured from center of manhole structure to center of manhole structure.

1.3.20.3 Unit of Measure

Unit of measure: lineal foot.

1.3.21 Sanitary Sewer Manhole

1.3.21.1 Payment

Payment will be made for costs associated with operations necessary for providing the sanitary sewer manhole as shown and specified. Payment for sanitary sewer manhole shall include, but not be limited to, excavation and backfill, concrete manhole, gaskets, rings, frame and cover, chimney seal and items incidental to the manhole.

1.3.21.2 Measurement

Sanitary Sewer Manhole will be measured on an each basis, in-place, complete.

1.3.21.3 Unit of Measure

Unit of measure: each.

1.3.22 Reconstruct Sanitary Sewer Manhole

1.3.22.1 Payment

Payment for reconstruct sanitary sewer manhole will be made for costs associated with the reconstruction as shown and specified. Payment for reconstruct manhole shall include, but not be limited to, excavation and backfill, manhole sections, rings, removal and salvage or disposal of manhole sections, chimney seal, and items incidental to the reconstruction.

1.3.22.2 Measurement

Reconstruct sanitary sewer manhole will be measured on an each basis, in-place, complete.

1.3.22.3 Unit of Measure

Unit of measure: each.

1.3.23 Sod

1.3.23.1 Payment

Establishment of turf in areas shown or specified to be sodded. Payment will include, but not be limited to costs for preparation, fertilizing, sodding, maintenance, watering, and work incidental to the sodding. No additional payment will be made for sodding outside of the limits of work unless authorized by the Contracting Officer.

1.3.23.2 Measurement

Sod will be measured on a square yard basis, in-place measure.

1.3.23.3 Unit of Measurement

Unit of measure: square yard

1.3.24 Furnish and Install Load Bank

1.3.24.1 Payment

Payment will be made for the costs associated with providing mechanical and electrical facilities for each pump station as shown and specified including, but not limited to furnishing a load bank as specified and installing the load bank in the exhaust ductwork downstream of the engine generator set. All power and control wiring to connect the load bank into the station electrical and generator control panels shall be included as part of this work.

1.3.24.2 Measurement

Furnish and Install Load Bank will be measured on an each basis, in-place, complete.

1.3.24.3 Unit of Measurement

Unit of measure: each.

1.3.25 Telephone Enclosure

1.3.25.1 Payment

Payment will be made for costs associated with operations necessary for fabrication and installation of telephone enclosure specified and shown which includes fabrication, mounting, and other incidental operations.

1.3.25.2 Measurement

Telephone enclosures will be measured on an each basis, in-place, complete.

1.3.25.3 Unit of Measurement

Unit of measure: each.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01320

PROJECT SCHEDULE

04/01

SECTION 01320

PROJECT SCHEDULE
04/01

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-07 Schedules

Initial Project Schedule; GA. Periodic Updates; GA.

Five copies of the initial project schedule shall be submitted. Two copies of periodic project schedule updates shall be submitted.

SD-14 Samples

Software; FIO.

The Contractor shall furnish the Government copies of the scheduling software if required under paragraph COMPUTER SOFTWARE REQUIREMENTS.

1.2 QUALIFICATIONS

The Contractor shall designate an authorized representative who shall be responsible for the preparation of all required project schedule reports.

PART 2 PRODUCTS

2.1 COMPUTER SOFTWARE REQUIREMENTS

The Contractor shall furnish the Government with the software to be used, unless waived by the Contracting Officer. The Contactor shall assist in installing the software in the Government resident office. The Contractor shall provide the software complete, including documentation and updates used in the Contractor's system. The software shall remain the property of the Contractor, but shall be in the possession of and for the exclusive use by the Government during the contract period. The Government shall have rights to install the software on 3 computers (resident office, area office, and district office).

PART 3 EXECUTION

3.1 GENERAL

Pursuant to the Contract Clause, SCHEDULE FOR CONSTRUCTION CONTRACTS, a project schedule as described below shall be prepared. The scheduling of work shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Subcontractors and suppliers working on the project shall contribute in developing and maintaining an accurate project schedule. The approved project schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of progress payments.

3.2 BASIS FOR PAYMENT

The project schedule shall be the basis for measuring Contractor progress. The Contracting Officer will use an approved project schedule to evaluate Contractor progress for payment purposes. In the case where project schedule revisions have been directed by the Contracting Officer and those revisions have not been included in the project schedule, then the Contracting Officer may hold retainage up to the maximum allowed by contract, each payment period, until the project schedule updates have been accepted.

3.3 SOFTWARE

Computer software systems utilized by the Contractor to produce the project schedule shall be capable of providing all requirements of this specification.

3.3.1 Use of the Critical Path Method

The project schedule shall clearly show the critical path. If a network analysis system is used, the Critical Path Method (CPM) of network calculation shall be used to generate the project schedule, provided in either the Precedence Diagram Method (PDM) or the Arrow Diagram Method (ADM).

3.3.2 Level of Detail Required

The project schedule shall include an appropriate level of detail. The Contracting Officer will use, but is not limited to, the following conditions to determine the appropriate level of detail to be used in the project schedule.

3.3.2.1 Activity Durations

The Contractor shall breakout lump-sum or sum-job contract line items into subcategories, or activities. The number of activities shall be sufficient to allow the progress to be accurately determined between payment periods.

3.3.2.2 Procurement Activities

Tasks related to the procurement of long lead materials or equipment shall be included as separate activities in the project schedule. Long lead materials and equipment are those materials that have a procurement cycle of over calender 90 days. Examples of procurement process activities

include, but are not limited to: submittals, approvals, procurement, fabrication, delivery, installation, start-up, and testing.

3.3.2.3 Government Activities

Government and other agency activities that could impact progress shall be shown. These activities include, but are not limited to: approvals, inspections, utility tie-in, Government furnished property, and notice to proceed for phasing requirements.

3.3.2.4 Responsibility

All activities shall be identified in the project schedule by the party (Prime Contractor, subcontractor, Government agency, etc.) responsible to perform the work. Activities shall not belong to more than one responsible party. The responsible party for each activity shall be identified by the Responsibility Code.

3.3.2.5 Feature of Work

All activities shall be identified in the project schedule according to the feature of work to which the activity belongs. Feature of work refers, but is not limited to a work breakdown structure for the project schedule. The feature of work for each activity shall be identified by the Feature of Work Code.

3.3.3 Scheduled Project Completion

The schedule interval shall extend from notice to proceed to the contract completion date. The notice to proceed date shall be taken as the date that notice to proceed was acknowledged.

3.3.3.1 Constraint of Last Activity

Completion of the last activity in the project schedule shall be constrained by the contract completion date. If the early finish of the last activity falls after the contract completion date, then the critical path shall show a negative float.

3.3.3.2 Early Project Completion

If the project schedule shows project completion prior to the contract completion date, the Contractor shall identify activities that have been accelerated and activities that are scheduled in parallel to support the "early" completion. The Contractor shall assist the Contracting Officer in evaluating the Contractor's ability to actually complete prior to the contract period.

3.3.4 Interim Completion Dates

Contractually specified interim completion dates shall also be constrained to show negative float if the early finish date of the last activity in that phase falls after the interim completion date.

3.3.5 Default Progress Data Disallowed

The Contractor shall document the actual start and actual finish dates on the daily quality control report for every in-progress or completed activity and ensure that the data contained on the daily quality control reports is the sole basis for project schedule updating. Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual start and finish dates on the CPM schedule shall match those dates provided from Contractor quality control reports.

3.3.6 Out-of-Sequence Progress

The Contracting Officer shall be notified prior to work on any activities that are out-of-sequence with the project schedule. The Contractor shall update the project schedule to correct any out-of-sequence work.

3.3.7 Extended Non-Work Periods

Non-work periods of over 5 working days shall be identified by addition of activities that represent the delays.

3.3.8 Negative Lags

Lag durations contained in the project schedule shall not have a negative value.

3.4 PROJECT SCHEDULE SUBMISSIONS

The Contractor shall provide the submissions as described below.

3.4.1 Initial Project Schedule Submission

The project schedule shall provide a reasonable sequence of activities which represent work through the entire contract period and shall be at a reasonable level of detail.

3.4.2 Periodic Updates

Based on the result of progress meetings, the Contractor shall submit periodic project schedule updates. The Contractor shall furnish information and project schedule data, which in the judgement of the Contracting Officer, is necessary for verifying the Contractor's progress.

3.4.3 Standard Activity Coding Dictionary

The Contractor shall submit, with the initial project schedule, a coding scheme that shall be used throughout the project schedule for all activity codes contained in the project schedule. The coding scheme submitted shall list the values for each activity code category and translate those values into project specific designations. For example, a responsibility code value, "ELE", may be identified as "Electrical Subcontractor". Activity code values shall represent the same information throughout the duration of the contract.

3.5 SUBMISSION REQUIREMENTS

The following items shall be submitted for each project schedule submission:

3.5.1 Earnings Report

The Contractor shall submit a compilation of the Contractor's Total Earnings on the project through the most recent Monthly Progress Meeting. Activities shall be grouped by contract line item. The printed report shall contain, for each contract line item: activity number, activity description, original budgeted amount, total quantity, quantity to date, percent complete (based on cost), and earnings to date. A total project percent complete shall also be provided. If necessary to substantiate partial payment and requested by the Contracting Officer, the earnings report shall detail activities within a contract line item.

3.5.2 Network Diagram

A network diagram shall be required on the initial project schedule submission and on periodic submissions when requested by the Contracting Officer (not less than quarterly). The network diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The network diagram shall be constructed to meet the following conditions:

a. Continuous Flow. Diagrams shall show a continuous flow from left to right with no arrows from right to left. The activity or event number, description, duration, and estimated earned value shall be shown on the diagram.

b. Project Milestone Dates. Dates shall be shown on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

c. Critical Path. The critical path shall be clearly shown.

d. Banding. Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by category of work, work area and/or responsibility.

e. S-Curves. Earnings curves showing projected early and late earnings and earnings to date.

3.6 PERIODIC PROGRESS MEETINGS

Progress meetings to discuss payment shall include a monthly onsite meeting or other regular intervals mutually agreed to at the preconstruction conference. During this meeting the Contractor shall describe, on an activity by activity basis, all proposed revisions and adjustments to the project schedule required to reflect the current status of the project.

3.6.1 Meeting Attendance

The Contractor's project manager and the Contractor's authorized representative responsible for preparation of the project schedule shall attend the regular progress meeting.

3.6.2 Update Submission Following Progress Meeting

A complete update of the project schedule containing all approved progress, revisions, and adjustments, based on the regular progress meeting, shall be submitted not later than 4 working days after every third monthly progress meeting.

3.6.3 Progress Meeting Contents

Update information, including actual start dates, actual finish dates, remaining durations, and cost-to-date shall be subject to the approval of the Contracting Officer. The Contractor shall address the following minimum set of items, on an activity by activity basis, during each progress meeting.

a. Start and Finish Dates. The actual start and actual finish dates for each completed activity. The actual start and projected finish dates for each activity in-progress.

b. Cost Completion. The earnings for each activity started. Payment will be based on earnings for each in-progress or completed activity. Payment for individual activities will not be made for work that contains defects.

c. Project Schedule Changes. All changes pertaining to notice to proceed on change orders, change orders to be incorporated into the project schedule, Contractor proposed changes in work sequence, corrections to project schedule for out-of-sequence progress, lag durations, and other changes that have been made pursuant to contract provisions shall be specifically identified and discussed.

d. Other Changes. Other changes required due to delays in completion of any activity or group of activities include unusually severe weather, product procurement, or other delays or work stoppages which make re-planning the work necessary.

3.7 REQUESTS FOR TIME EXTENSIONS

In the event the Contractor requests an extension of the contract completion date, the Contractor shall furnish such justification, project schedule data and supporting evidence as the Contracting Officer may deem necessary for a determination as to whether or not the Contractor is entitled to an extension of time under the provisions of the contract.

3.7.1 Justification of Delay

The project schedule shall clearly display that the Contractor has used, in full, all the float time available for the work involved with this request. The Contracting Officer's determination as to the number of allowable days of contract extension shall be based upon an approved project schedule and

other factual information. Delays that are caused by the Contractor's own actions will not be a cause for a time extension to the contract completion date.

3.7.2 Submission Requirements

The Contractor shall submit a justification in accordance with the requirements of other appropriate contract clauses and shall include, as a minimum:

a. A list of affected activities, with their associated project schedule activity number.

b. A brief explanation of the cause(s) of the change.

c. An analysis of the overall impact of the changes proposed.

d. If requested by the Contracting Officer, the Contractor shall provide an interim project schedule update with revised activities.

3.8 DIRECTED CHANGES

If notice to proceed is issued for undefinitized work, the Contractor shall submit proposed project schedule revisions to the Contracting Officer within 14 calender days of the notice to proceed being issued. The proposed revisions to the project schedule must be approved by the Contracting Officer prior to inclusion of those changes within the project schedule. If the Contractor fails to submit the proposed revisions, the Contracting Officer may furnish the Contractor suggested revisions to the project schedule; and the Contractor shall update the project schedule with the Contracting Officer's revisions until a mutual agreement in the revisions is reached.

3.9 OWNERSHIP OF FLOAT

Float available in the project schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01330

SUBMITTAL PROCEDURES

04/01

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SECTION 01330

SUBMITTAL PROCEDURES
04/01

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION

Submittals required are identified by SD numbers as follows:

SD-01 Data

SD-04 Drawings

SD-06 Instructions

SD-07 Schedules

SD-08 Statements

SD-09 Reports

SD-13 Certificates

SD-14 Samples

SD-18 Records

SD-19 Operation and Maintenance Manuals

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of SECTION 00700: CONTRACT CLAUSE entitled "SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION," they are considered to be "shop drawings."

1.2.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the CQC requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with SECTION 00700: CONTRACT CLAUSE "CHANGES" shall be given promptly to the Contracting Officer.

1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

1.6 MEASUREMENT AND PAYMENT

The work of this section will not be measured for payment. The Contractor shall be responsible for the work of this section, without any direct compensation being made other than the payment received for contract items.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the

acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this section is one set of ENG Form 4288 listing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor will also be given the submittal register as a diskette containing the computerized ENG Form 4288 and instructions on the use of the diskette. Columns "d" through "r" have been completed by the Government; the Contractor shall complete columns "a", "b", "c" and "s" through "u" and submit the forms (hard copy plus associated electronic file) to the Contracting Officer for approval within 7 calendar days after Notice to Proceed. The Contractor shall keep the submittal register up-to-date and shall submit it to the Government together with the monthly payment request. The approved submittal register will become the scheduling document and will be used to control submittals throughout the life of the contract. The submittal register and the progress schedules shall be coordinated.

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals. The submittal register shall provide for a reasonable timely distribution of shop drawings as they are prepared (particularly within a specific discipline, i.e.: structural, mechanical).

3.4 TRANSMITTAL FORM (ENG FORM 4025-R)

The sample transmittal form (ENG Form 4025-R) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.5 SUBMITTAL PROCEDURE

3.5.1 Submittal Copies

The Contractor shall submit 6 copies of each submittal (both government approved and for information only) unless otherwise indicated. Each transmittal shall address only one submittal item. Transmittals returned for resubmission shall be resubmitted in their entirety. When approved by

the Contracting Officer, routine test reports and delivery tickets may be submitted with daily quality control reports in place of following submittal procedures under this section.

3.5.2 Schedule

Shop drawings shall be submitted with ample time to secure Government approval prior to the time the items covered thereby are to be delivered to the site. Additional time should be allowed for possible resubmittal. Materials fabricated or delivered without Government approval of the shop drawing will be subject to rejection. All submittals shall be made prior to commencement of applicable work, and allow adequate time for government review acceptable to the Contracting Officer.

3.5.3 Shop Drawings

Shop drawings shall be reproductions on high quality paper with clear legible print. Drawings shall generally be bordered a minimum of one inch and trimmed to neat lines. Shop drawing quality will be subject to approval. Each shop drawing, including catalog data, shall be identified with a title block including the name of the Contractor, contract number, name and location of project, and name of the item of work or structure to which the shop drawing applies. Catalog data, including specifications and full descriptive matter, may be submitted as shop drawings. Catalog data must be supplemented as necessary to include all pertinent data to verify conformance to the contract documents. When catalog data includes non applicable data, the applicable data shall be clearly indicated.

3.5.4 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025-R shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. Five copies of the submittal will be retained by the Contracting Officer and 1 copy of the submittal will be returned to the Contractor.

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of

the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

3.9 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

3.10 CONTRACTOR RECORD DRAWINGS

The Contractor shall maintain a separate set of marked-up full-scale contract drawings indicating as-built conditions. These drawings shall be maintained in a current condition at all times until completion of the work and shall be available for review by Government personnel at all times. All variations from the contract drawings, for whatever reason, including those occasioned by modifications, optional materials, and the required coordination between trades, shall be indicated. These variations shall be

shown in the same general detail utilized in the contract drawings. Revisions shall be shown on all drawings and details related to the changed feature. These drawings shall be neatly prepared with clear legible print. Deleted items shall be indicated in red and added items or changed locations shall be shown in green. These drawings shall be furnished to the Contracting Officer within 30 days after the required contract completion date.

3.10.1 As-Built Shop Drawings

The Contractor shall record changes to shop drawings to indicate as-built conditions. These drawings shall show all changes and revisions made up to the time the equipment is completed and accepted.

-- End of Section --

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE	TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. *(Cover only one section with each transmittal)*	PROJECT TITLE AND LOCATION		CHECK ONE: THIS TRANSMITTAL IS FOR ☐ FIO ☐ GOV'T. APPROVAL

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type size, model number/etc.)* *b.*	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See instruction no. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE *g.*	VARIATION *(See instruction No. 6)* *h.*	FOR CE USE CODE *i.*
				SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*			

REMARKS

I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated.

NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number of copies.

2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.

3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.

4. Submittals requiring expeditious handling will be submitted on a separate form.

5. Separate transmittal form will be used for submittals under separate sections of the specifications.

6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".

7. Form is self-transmittal, letter of transmittal is not required.

8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.

9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A -- Approved as submitted.

B -- Approved, except as noted on drawings.

C -- Approved, except as noted on drawings. Refer to attached sheet resubmission required.

D -- Will be returned by separate correspondence.

E -- Disapproved (See attached).

F -- Receipt acknowledged.

FX -- Receipt acknowledged, does not comply as noted with contract requirements.

G -- Other *(Specify)*

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
01000

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.4	Utility As-Builts		X									X											
			1.4	Dewatering Plan					X						X											
			1.4	Shoring plan					X						X											
			1.4	Haul Route Permits					X						X											
			1.4	Utility Service Interruption Request					X							X										
			3.1.3.1	Traffic Control Plan					X							X										
			1.4	Levee Removal/Flood Protection Plan					X							X										
			1.4	Preconstruction Damage Report						X					X											

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
01270

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			1.1	Quantity Surveys		X									X											

SUBMITTAL REGISTER
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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
01320

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.1	Initial Project Schedule				X								X										
			1.1	Periodic Updates				X								X										
			1.1	Software								X			X											

SUBMITTAL REGISTER
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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
01410

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Environmental Protection Plan					X							X										

SUBMITTAL REGISTER
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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
01451

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Contractor Quality Control (CQC)					X							X										
				Plan																						
			1.2	Laboratory Quality Management					X						X											
				Manual																						
			1.2	Documentation of work									X		X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
01500

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.1	Site Plan		X									X											
			1.1	Government Field Office		X									X											

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION: **East Grand Forks, Phase 1 Levees**

CONTRACTOR

SPECIFICATION SECTION: **01567**

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	CODE y.	DATE z.	REMARKS aa.
			1.3	Temporary Erosion And Sediment Control Plan		X									X											
			1.3	Application									X			X										
			1.3	Notice of Termination									X		X											

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02220

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			1.3	Work Plan					X							X										

SUBMITTAL REGISTER
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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02290

ACTIVITY NO. a.	TRANSMITTAL NO. b.	ITEM NO. c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.4	Product Data	X											X										
			1.4	Testing Laboratory Statment					X							X										
			1.4	Filling Plan					X							X										
			1.4	Settlement Gage Readings						X					X											

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02300

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Testing						X					X											
			1.2	Daily Report Forms;						X					X											

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02315

ACTIVITY NO	TRANS-MITTAL NO.	ITEM NO	SPECIFICATION PARAGRAPH NUMBER	DESCRIPTION OF ITEM SUBMITTED	TYPE OF SUBMITTAL: DATA	DRAWINGS	INSTRUCTIONS	SCHEDULES	STATEMENTS	REPORTS	CERTIFICATES	SAMPLES	RECORDS	O&M MANUALS	CLASSIFICATION: INFORMATION ONLY	GOVERNMENT APPROVED	REVIEWER	CONTRACTOR SCHEDULE DATES: SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CONTRACTOR ACTION: CODE	DATE	SUBMIT TO GOVERN-MENT	GOVERNMENT ACTION: CODE	DATE	REMARKS
a.	b.	c.	d.	e.	f.	g.	h.	i.	j.	k.	l.	m.	n.	o.	p.	q.	r.	s.	t.	u.	v.	w.	x.	y.	z.	aa.
			1.3	Testing						X					X											

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02373

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Manufacturing Quality Control			X								X											
				Sampling and Testing																						
			2.1.1	Geotextile							X					X										

ENG FORM 4288, Jul 96

SPECSINTACT

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02378

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			2.1.1.1	Geotextile							X					X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02388

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Material Sources					X							X										
			1.2	Gradation Test						X					X											
			1.2	Certified Weight Scale Tickets							X				X											

SUBMITTAL REGISTER
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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02464

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Metal Sheet Piling		X										X										
			1.2	Pile Driving Equipment		X										X										
			1.2	Pulling and Redriving					X							X										
			1.2	Interlocked Joint Strength in Tension					X							X										
				Test																						
			1.2	Materials Tests					X						X											
			1.2	Driving									X		X											

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CONTRACT NO.

TITLE AND LOCATION: **East Grand Forks, Phase 1 Levees**

CONTRACTOR

SPECIFICATION SECTION: **02510**

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.3	Waste Water Disposal Method					X							X										
			1.3	Satisfactory Installation					X						X											

SUBMITTAL REGISTER
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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02531

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			1.3	Portland Cement							X					X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02532

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	River Crossing Pipe Shop Drawings		X										X										
			3.1.1	Forcemain Bypass and Relocation					X							X										
				Plan																						
			3.2	Hydrostatic Tests						X					X											

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CONTRACT NO.

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East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02620

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			2.2	Geotextile Fabric							X					X										
			2.1	Pipe for Subdrains							X					X										

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CONTRACT NO.

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CONTRACTOR

SPECIFICATION SECTION
02630

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Test Reports							X				X											

SUBMITTAL REGISTER
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CONTRACT NO.

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CONTRACTOR

SPECIFICATION SECTION
02722

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Testing						X					X											

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
02741

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Paving Schedule				X							X											
			1.2	Testing						X					X											
			1.2	Mix Design						X						X										

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CONTRACT NO.

TITLE AND LOCATION
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CONTRACTOR

SPECIFICATION SECTION
02754

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Paving Schedule				X							X											
			1.2	Concrete Mixture Proportions						X						X										
			1.2	Testing						X					X											

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SPECIFICATION SECTION
02763

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Equipment Lists	X											X										
			1.2	Mixing, Thinning and Application			X								X											
			1.2	Qualifications					X						X											
			1.2	Material Tests						X					X											
			1.2	Volatile Organic Compound (VOC)							X				X											
				Content																						

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CONTRACTOR

SPECIFICATION SECTION
02770

ACTIVITY NO. a.	TRANS-MITTAL NO. b.	ITEM NO. c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	TYPE OF SUBMITTAL: DRAWINGS g.	TYPE OF SUBMITTAL: INSTRUCTIONS h.	TYPE OF SUBMITTAL: SCHEDULES i.	TYPE OF SUBMITTAL: STATEMENTS j.	TYPE OF SUBMITTAL: REPORTS k.	TYPE OF SUBMITTAL: CERTIFICATES l.	TYPE OF SUBMITTAL: SAMPLES m.	TYPE OF SUBMITTAL: RECORDS n.	TYPE OF SUBMITTAL: O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	CONTRACTOR SCHEDULE DATES: APPROVAL NEEDED BY t.	CONTRACTOR SCHEDULE DATES: MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	CONTRACTOR ACTION: DATE w.	CONTRACTOR ACTION: SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	GOVERNMENT ACTION: DATE z.	REMARKS aa.
			1.2	Concrete placement schedule				X							X											
			1.2	Concrete Mixture Proportions						X						X										
			1.2	Testing						X					X											
			1.2	Concrete									X		X											

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CONTRACTOR

SPECIFICATION SECTION
02791

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.4	Loose Fill Surfacing	X											X										
			1.4	Geotextile	X											X										
			1.4	Manufacturer's Qualifications	X											X										
			3.1	Site Preparation	X											X										
			1.4	Temperature Limitation	X											X										
			1.4	Color	X											X										
			1.4	Shop Drawings		X										X										
			3.1.4	Percolation Test						X						X										
			1.4	Materials							X					X										
			1.7	Manufacturer's Qualification							X					X										
			1.11	Manufacturer's Representative							X					X										
			1.8	Installer's Qualification							X					X										
			1.4	Substitution							X					X										
			3.3.1	Child Safety and Accessibility							X					X										
				Evaluation																						
			1.4	Loose Fill Surfacing								X				X										
			3.3.2	Maintenance Instruction										X		X										

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SPECIFICATION SECTION
02870

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Site Furnishings	X											X										
			2.5	Site Furnishing Standards		X										X										
			3.1	INSTALLATION			X									X										
			1.2	Materials					X							X										
			1.2	Recycled Material						X						X										
			2.4	FINISH								X				X										

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CONTRACTOR

SPECIFICATION SECTION
02882

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL										CLASSI-FICATION		REVIEWER r.	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS aa.
					DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.		SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	CODE y.	DATE z.	
			1.4	Equipment	X											X										
			1.6	Equipment Identification	X											X										
			1.5	Delivery, Storage and Handling	X											X										
			1.4	Manufacturer Qualifications	X											X										
			1.4	Configuration		X										X										
			1.4	Shop Drawings		X										X										
			1.4	Fall Height		X										X										
			1.4	Finished Grade and Underground		X										X										
				Utilities																						
			1.4	Materials							X					X										
			1.10	Manufacturer Qualification							X					X										
			1.14	Manufacturer's Representative							X					X										
			1.4	Substitution							X					X										
			1.4	Play Event Modifications							X					X										
			1.4	Child Safety and Accessibility							X					X										
				Evaluation																						
			1.4	Color								X				X										
			1.4	Maintenance Instruction										X		X										
			3.4.2	Spare Parts										X		X										

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CONTRACTOR

SPECIFICATION SECTION
02920

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL											CLASSI-FICATION		REVIEWER r.	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		REMARKS aa.
					DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.		SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	CODE y.	DATE z.	
			1.2	Manufacturer's Literature	X										X												
			1.2	Experience for Native Grasses					X						X												
			1.2	Soil Test						X					X												
			1.2	Seed Test						X					X												
			1.2	Water Test						X					X												
			1.2	Certificates of Compliance							X				X												
			1.2	Samples								X			X												
			1.2	Quantity Check									X		X												
			1.2	Maintenance Record									X		X												
			1.2	Seed Order for Native Grasses									X		X												

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CONTRACTOR

SPECIFICATION SECTION
02930

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			1.2	Plant Installation Schedule				X								X										
			3.8	Plant Establishment Period					X						X											
			1.2	Percolation Test						X					X											
			1.2	Maintenance Record									X		X											

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SPECIFICATION SECTION
02935

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Work Plan and Schedule					X							X										
			3.3.1	Maintenance Record					X							X										
			1.2	Contractor's record of each site visit					X						X											
			1.2	Soil Test						X						X										
			1.2	Percolation Test						X						X										

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SPECIFICATION SECTION
03100

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Design	X										X											
			1.2	Form Materials	X										X											
			1.2	Concrete Formwork		X									X											
			1.2	Form Releasing Agents			X								X											

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CONTRACTOR

SPECIFICATION SECTION
03150

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Preformed Expansion Joint Filler	X											X										
			1.2	Sealant	X											X										
			1.2	Waterstops	X											X										
			1.2	Waterstops		X									X											
			1.2	Preformed Expansion Joint Filler			X								X											
			1.2	Sealant			X								X											
			1.2	Waterstops			X								X											
			1.2	Preformed Expansion Joint Filler							X				X											
			1.2	Sealant							X				X											
			1.2	Waterstops							X				X											
			1.2	Field-Molded Type								X				X										
			1.2	Non-metallic Materials								X				X										

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SPECIFICATION SECTION
03200

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.3	Concrete Reinforcement System		X										X										
			1.3	Adhesive Anchors			X									X										
			1.3	Proprietary Rebar Mechanical			X									X										
				Splices																						
			1.3	Welding					X						X											
			1.3	Product Technical Data							X				X											

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SPECIFICATION SECTION
03300

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.3	Concrete Mixture Design					X							X										
			1.3	Concrete Operation Plan					X							X										
			1.3	Cold Weather Plan					X							X										
			1.3	Hot Weather Plan					X							X										
			1.3	Joint Treatment Plan					X							X										
			1.3	Concrete Testing Reports						X					X											
			1.3	Manufacturer's Certificates							X					X										
			1.3	Qualifications							X				X											
			1.3	Batch Tickets							X				X											

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SPECIFICATION SECTION
03360

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			2.1.1	Simulated Stone Masonry		X										X										
			1.2	Panel								X			X											
			2.1.3	Form Ties								X			X											

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SPECIFICATION SECTION
04200

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			2.2	Clay or Shale Brick	X											X										
			2.3	Concrete Masonry Units (CMU)	X											X										
			2.12	Insulation	X											X										
			2.4	Stone Items	X											X										
			2.3	Concrete Masonry Units (CMU)								X				X										
			2.4	Stone Items								X				X										
			2.2	Clay or Shale Brick								X				X										
			1.2	Precast Concrete Items								X				X										

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SPECIFICATION SECTION
05055

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Detail Drawings		X										X										
			1.2	Materials Orders				X							X											
			1.2	Materials List				X							X											
			1.2	Shipping Bill				X							X											
			1.2	Welding Procedures for Structural					X						X											
				Steel																						
			1.2	Welding of Aluminum					X						X											
			1.2	Structural Steel Welding Repairs					X						X											
			1.2	Tests, Inspections, and Verifications						X					X											
			1.2	Qualification of Welders and Welding							X				X											
				Operators																						
			1.2	Application Qualification for Steel							X				X											
				Studs																						
			1.2	Welding of Aluminum							X				X											
			1.2	Materials Disposition Records									X		X											

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SPECIFICATION SECTION
05300

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			2.1	Deck Units	X										X											
			2.1	Deck Units		X									X											
			2.5	Accessories		X									X											
			2.1	Deck Units							X				X											

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SPECIFICATION SECTION: **05420**

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Roof Trusses		X										X										

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SPECIFICATION SECTION
05500

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Miscellaneous Metal Items		X										X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
06190

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Design Calculations	X											X										
			1.2	Pre-engineered, shop-assembled		X										X										
				wood roof trusses																						

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
06200

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	CODE y.	DATE z.	REMARKS aa.
			1.2	Finish Carpentry		X										X										
			1.2	Kiosk		X										X										
			1.2	Vanities		X										X										
			1.2	Solid polymer material								X				X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
07210

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			1.3	Insulation Product Data	X											X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
07412

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	CONTRACTOR SCHEDULE DATES: APPROVAL NEEDED BY t.	CONTRACTOR SCHEDULE DATES: MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	CONTRACTOR ACTION: DATE w.	CONTRACTOR ACTION: SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	GOVERNMENT ACTION: DATE z.	REMARKS aa.
			1.5	Metal Roofing		X										X										
			1.5	Warranties		X										X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
07466

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Manufacturer's Product Data	X											X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
07900

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			2.4	Sealant	X											X										

SUBMITTAL REGISTER
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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
08110

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			1.2	Steel Doors and Frames		X										X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
08330

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Overhead Rolling Door Unit	X											X										
			1.2	Overhead Rolling Door Unit		X										X										
			1.2	Overhead Rolling Door Unit			X								X											
			1.2	Overhead Rolling Door Unit								X				X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
08625

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Shop Drawings		X										X										
			1.2	Test Reports						X						X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
08700

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	CONTRACTOR SCHEDULE DATES: APPROVAL NEEDED BY t.	CONTRACTOR SCHEDULE DATES: MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	CONTRACTOR ACTION: DATE w.	CONTRACTOR ACTION: SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	GOVERNMENT ACTION: DATE z.	REMARKS aa.
			1.2	Hardware Schedule				X								X										
			2.5.1	Keying Schedule				X								X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
09310

ACTIVITY NO. a.	TRANSMITTAL NO. b.	ITEM NO. c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			2.1	Tile	X											X										
			2.1	Tile								X				X										

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CONTRACT NO.

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East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
09900

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Paint	X										X											
			1.2	Mixing and Thinning			X								X											
			1.2	Application			X								X											

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
09915

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Color Schedule								X			X											

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
10170

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Product Data	X											X										
			1.2	Color Selections								X				X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
10430

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			1.5	Exterior Signs		X										X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
10520

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	CODE y.	DATE z.	REMARKS aa.
			1.1	Product Data	X											X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
10800

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			2.1.2	Finishes	X											X										
			2.2	Accessory Items	X											X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
14630

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.3	Design Calculations	X											X										
			1.3	Spare Parts Data	X											X										
			1.3	Shop Drawings		X										X										
			1.3	Performance Test Reports						X						X										
			1.3	Operation and Maintenance Instructions										X		X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
15000

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.4	Equipment and Materials Shop		X										X										
				Drawings																						
			1.4	Cooling Air Ductwork Shop Drawings		X										X										
			1.4	List of Equipment and MaterialsSD-	X										X											
			1.4	Equipment and Material Certificates							X					X										
			1.4	Instruction Manuals										X		X										
			1.4	Exhaust System Drawings		X										X										

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TITLE AND LOCATION: **East Grand Forks, Phase 1 Levees**

CONTRACTOR

SPECIFICATION SECTION: **15050**

ACTIVITY NO. a.	TRANSMITTAL NO. b.	ITEM NO. c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Design Data	X											X										
			1.2	Gate Vendor Information	X										X											
			1.2	Shop Drawings		X										X										
			1.2	Operation and Maintenance Manuals										X		X										

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(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
15055

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.4	Purchased Component Data	X											X										
			1.4	Fabricated Components		X										X										
			1.4	Protective Coatings Procedures	X											X										
			1.4	Delivery Drawings		X									X											
			1.4	Erection Drawings		X										X										
			1.4	Final Revised Shop Drawings		X										X										
			1.4	Spare Parts List			X								X											
			1.4	Shipment and Storage Procedures					X							X										
			1.4	Installation and Start-Up Procedures					X							X										
			1.4	Warranties					X						X											
			1.4	Design Computations						X						X										
			1.4	Variance Requests						X						X										
			1.4	Purchased Component Certification							X				X											
			1.4	Product Samples								X				X										
			1.4	Operation and Maintenance Manuals										X		X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
15060

ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	Type of Submittal: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	Classification: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	Contractor Schedule Dates: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	Contractor Action: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	Government Action: CODE y.	DATE z.	REMARKS aa.
			2.2.4	Coatings	X											X										
			2.1.3	Materials and Equipment		X										X										
			3.2	Performance Test Reports						X					X											
			2.2.1	Piping							X					X										

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CONTRACTOR

SPECIFICATION SECTION
15100

					TYPE OF SUBMITTAL										CLASSIFICATION			CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION			GOVERNMENT ACTION		
ACTIVITY NO a.	TRANSMITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	CODE y.	DATE z.	REMARKS aa.
			1.3	Shop Drawings		X										X										

SUBMITTAL REGISTER
(ER 415 1-10)

TITLE AND LOCATION	CONTRACTOR	CONTRACT NO. / SPECIFICATION SECTION
East Grand Forks, Phase 1 Levees		15161

ACTIVITY NO. a.	TRANS-MITTAL NO. b.	ITEM NO. c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.4	Pump Setting Drawings		X										X										
			1.4	Installation and Erection			X									X										
			1.4	Test Results						X					X											
			1.4	Operation and Maintenance Manual										X		X										

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
15400

ACTIVITY NO. a.	TRANS-MITTAL NO. b.	ITEM NO. c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERNMENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.4	Shop Drawings		X										X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
15500

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.4	Heating Equipment Data	X											X										
			1.4	Exhaust Fans Data	X											X										
			1.4	Louvers and Dampers Data	X											X										
			1.4	Spare Parts Data	X										X											
			1.4	Heating and Ventilating Systems		X										X										
				Drawings																						
			1.4	Balancing Reports						X					X											
			1.4	Performance Test Reports						X					X											
			1.4	Operating and Maintenance										X	X											
				Instructions and Manuals																						

SUBMITTAL REGISTER
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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
16000

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	CONTRACTOR ACTION: DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	GOVERNMENT ACTION: DATE z.	REMARKS aa.
			1.2	Lighting Fixtures and Lamps		X										X										
				Drawings																						
			1.2	Electronic Ballast Drawings		X										X										
			1.2	Panelboard Drawings		X										X										
			1.2	Electric Hand Dryers and Hair Dryers		X										X										
				Drawings																						
			1.2	Operation and Maintenance Manual										X	X											

ENG FORM 4288, Jul 96

SPECSINTACT

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
16120

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			2.2	Installation Instructions	X										X											
			2.3	Tests, Inspections, and Verifications						X					X											

ENG FORM 4288, Jul 96

SPECSINTACT

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(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
16140

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.2	Metering Data	X										X											
			1.2	Meter Component Drawings		X										X										

SUBMITTAL REGISTER
(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
16403

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.3	Equipment	X											X										
			1.3	Outline Drawings		X										X										
			2.4	Switchboards		X										X										
			2.5	Panelboards		X										X										

SUBMITTAL REGISTER
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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
16415

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	CLASSIFICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.
			1.3	Manufacturer's Catalog	X											X										
			1.3	Material, Equipment, and Fixture	X										X											
				Lists																						
			1.3	As-Built Drawings		X										X										
			1.3	Materials and Equipment							X				X											

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CONTRACT NO.

TITLE AND LOCATION
East Grand Forks, Phase 1 Levees

CONTRACTOR

SPECIFICATION SECTION
16528

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSI-FICATION: INFORMATION ONLY p.	CLASSI-FICATION: GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	CONTRACTOR SCHEDULE DATES: APPROVAL NEEDED BY t.	CONTRACTOR SCHEDULE DATES: MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	CONTRACTOR ACTION: DATE w.	CONTRACTOR ACTION: SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	GOVERNMENT ACTION: DATE z.	REMARKS aa.
			1.4	Equipment and Materials	X											X										
			1.4	Lighting System		X										X										

SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01410

ENVIRONMENTAL PROTECTION

04/01

-- End of Section Table of Contents --

SECTION 01410

ENVIRONMENTAL PROTECTION
04/01

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS

The Contractor shall perform the work minimizing environmental pollution and damage as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract.

1.1.1 Subcontractors

The Contractor shall insure that its subcontractors comply with the requirements of this section.

1.1.2 Definitions

For the purpose of this specification, environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic, cultural, and/or historical purposes. The control of environmental pollution and damage requires consideration of air, water, and land, and includes management of visual aesthetics, noise, solid waste, radiant energy, and radioactive materials, as well as other pollutants.

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following items shall be submitted in accordance with SECTION 01330: SUBMITTAL PROCEDURES.

SD-08 Statements

Environmental Protection Plan; GA.

The Environmental Protection Plan shall be prepared in accordance with PARAGRAPH: ENVIRONMENTAL PROTECTION PLAN.

1.3 ENVIRONMENTAL PROTECTION PLAN

1.3.1 Implementation.

Prior to ordering required materials/equipment or commencing construction work, the Contractor shall:

a. Submit to the Contracting Officer an acceptable written Environmental Protection Plan;

b. Obtain the Contracting Officer's written acceptance of the Environmental Protection Plan; and

c. Meet with representatives of the Contracting Officer for the purpose of developing an understanding of the requirements and methods of administration of the Contractor's Environmental Protection Plan.

1.3.2 Compliance.

Not withstanding the requirements of this section and not withstanding approval by the Contracting Officer of the Contractor's Environmental Protection Plan, nothing herein shall be construed as relieving the Contractor of all applicable Federal, State, and local environmental protection laws and regulations.

1.3.3 Contents.

The Environmental Protection Plan shall include, but shall not be limited to, the following:

a. Name(s) of person(s) within the Contractor's on-site organization who is(are) responsible for ensuring that the Environmental Protection Plan is adhered to.

b. Meeting times and personnel attendance for communication and notification of personnel and subcontractors regarding environmental requirements, and name(s) of person(s) responsible for this training.

c. The Contractor shall prepare a listing of resources needing protection, (i.e., trees, shrubs, vines, grasses and ground cover, landscape features, air and water quality, fish and wildlife, soil, and historical, archaeological, and cultural resources); and what methods will be used to protect these resources.

d. Name(s) of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.

e. Procedures to be implemented to provide the required environmental protection, to comply with the applicable laws and regulations, and to correct pollution due to accident, natural causes, or failure to follow the procedures of the Environmental Protection Plan.

f. Methods and locations for waste disposal. Licenses or permits shall be submitted for solid waste disposal sites that are not an operating commercial facility. Evidence of disposal facility acceptance shall be submitted for any hazardous or toxic waste.

g. Drawings showing locations of any proposed temporary excavations

or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials.

h. Environmental monitoring plans for the job site, including land, water, air, and noise monitoring.

i. Traffic control plans.

j. Methods of protecting surface and ground water during construction activities.

k. Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas.

l. Drawing of borrow areas.

m. Plans for restoration of landscape damage.

n. Preconstruction damage surveys and reports as specified in SECTION 01000: GENERAL.

1.4 PERMITS

Permits obtained by the Government related to the work of this contract are attached in SECTION 00830: ATTACHMENTS, or referenced in SECTION 01000: GENERAL. The Contractor is responsible for obtaining all applicable permits or licenses(those not obtained by the Government). The Contractor shall be responsible for implementing the terms and requirements of the permits held by the Contractor or the Government. A copy of permits referenced in SECTION 01000: GENERAL are available for inspection in the Office of the District Engineer, Army Corps of Engineers Centre, 190 Fifth Street East, St. Paul, Minnesota 55101-1638.

1.5 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with the previously mentioned Federal, State or local laws or regulations, permits, and other elements of the Contractor's Environmental Protection Plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of proposed corrective action and take such action when approved. If the Contractor fails to comply promptly, the Contracting Officer may issue an order stopping (suspending) all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or costs or damages allowed to the Contractor for any such suspensions. Failure of the Contracting Officer to notify the Contractor of any noncompliance with Federal, State, or local laws or regulations does not relieve the Contractor of the obligation to be in conformance with those requirements.

1.6 PREVIOUSLY USED EQUIPMENT

The Contractor shall thoroughly clean all construction equipment previously

used at other sites before it is brought into the work areas, ensuring that soil residuals are removed and that egg deposits from plant pests are not present; the Contractor shall consult with the USDA jurisdictional office for additional cleaning requirements.

1.7 PAYMENT

No separate payment or direct payment will be made for work covered under this section and such work will be considered as a subsidiary obligation of the Contractor.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 ENVIRONMENTAL RESOURCES.

The environmental resources within the project boundaries and those affected outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine its activities to areas defined by the drawings and specifications.

3.2 LAND RESOURCES

Prior to the beginning of any construction, the Contractor shall identify all land resources to be preserved within the Contractor's work area. The Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without permission from the Contracting Officer. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. Where such special emergency use is permitted, the Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs. Stone, earth or other material displaced into uncleared areas shall be removed.

3.2.1 Work Area Limits

Prior to any construction, the Contractor shall mark the areas that need not be disturbed under this contract. Isolated areas within the general work area which are to be saved and protected shall also be marked or fenced. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, the markers shall be visible. The Contractor's personnel shall be knowledgeable of the purpose for marking and/or protecting particular objects.

3.2.2 Landscape

Trees, shrubs, vines, grasses, land forms and other landscape features indicated and defined on the drawings to be preserved shall be clearly identified by marking, fencing, or wrapping with boards, or any other approved techniques.

3.2.3 Unprotected Erodible Soils

Earthwork brought to final grade shall be finished as indicated. Side slopes and back slopes shall be protected as soon as practicable upon completion of rough grading. All earthwork shall be planned and conducted to minimize the duration of exposure of unprotected soils. Except in cases where the constructed feature obscures borrow areas, quarries, and waste material areas, these areas shall not initially be totally cleared. Clearing of such areas shall progress in reasonably sized increments as needed to use the developed areas as approved by the Contracting Officer.

3.2.4 Disturbed Areas

The Contractor shall effectively prevent erosion and control sedimentation through approved methods including, but not limited to, the following:

a. Retardation and control of runoff. Runoff from the construction site or from storms shall be controlled, retarded, and diverted to protected drainage courses by means of diversion ditches, benches, berms, and by any measures required by area wide plans under the Clean Water Act.

b. Erosion and sedimentation control devices. The Contractor shall construct or install temporary and permanent erosion and sedimentation control features as indicated or required. Berms, dikes, drains, sedimentation basins, grassing, and mulching shall be maintained until permanent drainage and erosion control facilities are completed and operative.

c. Sediment basins. Sediment from construction areas shall be trapped in temporary or permanent sediment basins. The sediment basins shall be constructed in accordance with basin plans when shown on the drawings. The basins shall accommodate the runoff of a local 5 year storm, except that the design storm event required by the watershed district, watershed management board, or similar governing agency shall be used if available. After each storm, the basins shall be pumped dry and accumulated sediment shall be removed to maintain basin effectiveness. Overflow shall be controlled by paved weirs or by vertical overflow pipes. The collected topsoil sediment shall be reused for fill on the construction site, and/or stockpiled for use at another site. The Contractor shall institute effluent quality monitoring programs as required by State and local environmental agencies.

3.2.5 Contractor Facilities and Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made only when approved. Borrow areas shall be managed to minimize erosion and to prevent sediment from entering nearby waters. Spoil areas shall be managed and controlled to limit spoil intrusion into areas designated on the drawings and to prevent erosion of

soil or sediment from entering nearby waters. Spoil areas shall be developed in accordance with the grading plan indicated on the drawings. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas from despoilment.

3.3 WATER RESOURCES

The Contractor shall keep construction activities under surveillance, management, and control to avoid pollution of surface and ground waters. Toxic or hazardous chemicals shall not be applied to soil or vegetation when such application may cause contamination of the fresh water reserve. Monitoring of water areas affected by construction shall be the Contractor's responsibility. All water areas affected by construction activities shall be monitored by the Contractor.

3.3.1 Washing and Curing Water

Waste waters directly derived from construction activities shall not be allowed to enter water areas. Waste waters shall be collected and placed in retention ponds where suspended material can be settled out or the water evaporates to separate pollutants from the water.

3.3.2 Cofferdam and Diversion Operations

Construction operations for dewatering, and removal of cofferdams, shall be controlled at all times to limit the impact of water turbidity on the habitat for wildlife and on water quality for downstream use. The Contractor shall plan its operations and perform all work necessary to minimize adverse impact or violation of the water quality standards applicable to this contract.

3.3.3 Stream Crossings

Stream crossings shall be controlled during construction. Crossings shall provide movement of materials or equipment which do not violate water pollution control standards of Federal, State, or local governments.

3.3.4 Fish and Wildlife

The Contractor shall minimize interference with, disturbance to, and damage of fish and wildlife. Species that require specific attention along with measures for their protection shall be listed by the Contractor prior to beginning of construction operations.

3.3.5 Fuel Handling

The Contractor shall provide containment around fueling areas to ensure that spills do not reach waters of the state.

3.4 AIR RESOURCES

Equipment operation and activities or processes performed by the Contractor in accomplishing the specified construction shall be in accordance with State air pollution statutes, rules, and regulations and all Federal

emission and performance laws and standards. Ambient Air Quality Standards set by the Environmental Protection Agency shall be maintained. Monitoring of air quality shall be the Contractor's responsibility. All air areas affected by the construction activities shall be monitored by the Contractor.

3.4.1 Particulates

Dust particles; aerosols and gaseous by-products from construction activities; and processing and preparation of materials, such as from asphaltic batch plants; shall be controlled at all times, including weekends, holidays and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates which would cause the air pollution standards to be exceeded or which would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, light bituminous treatment, baghouse, scrubbers, electrostatic precipitators or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp at all times. The Contractor must have sufficient, competent equipment available to accomplish these tasks. Particulate control shall be performed as the work proceeds and whenever a particulate nuisance or hazard occurs.

3.4.2 Hydrocarbons and Carbon Monoxide

Hydrocarbons and carbon monoxide emissions from equipment shall be controlled to Federal and State allowable limits at all times.

3.4.3 Odors

Odors shall be controlled at all times for all construction activities, processing and preparation of materials.

3.4.4 Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize environment damage by noise. The Contractor shall use methods and devices to control noise emitted by equipment to within the levels specified in the "Safety and Health Requirements Manual" referenced in the clause "Accident Prevention" in SECTION 00700: CONTRACT CLAUSES.

3.5 WASTE DISPOSAL

The Contracting Officer shall be informed of any waste disposal requirements identified during the work and not covered in the Environmental Protection Plan. Waste disposal plans shall be updated and submitted as required.

3.5.1 Solid Wastes

Solid wastes (excluding clearing debris) shall be placed in containers which are emptied on a regular schedule. Handling and disposal shall be

conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste off Project Site and dispose of it in compliance with Federal, State, and local requirements for solid waste disposal. The Contractor shall comply with Federal, State, and local laws and regulations pertaining to the use of landfill areas.

3.5.2 Chemical Wastes

Chemical waste shall be stored in corrosion resistant containers, removed from the work areas, and disposed of in accordance with Federal, State, and local laws and regulations.

3.6 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Existing historical, archaeological, and cultural resources within the Contractor's work area will be so designated by the Contracting Officer if any have been identified. The Contractor shall take precautions to preserve all such resources as they existed at the time they were first pointed out. The Contractor shall provide and install protection for these resources and be responsible for their preservation during the life of the contract. If during excavation or other construction activities any previously unidentified or unanticipated resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rocks or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer.

3.7 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction.

3.8 RESTORATION OF LANDSCAPE DAMAGE

The Contractor shall restore all landscape features damaged or destroyed during construction operations outside the neat lines of project features. Such restoration shall be in accordance with the Environmental Protection Plan. This work shall be accomplished at the Contractor's expense and at no additional cost to the Government.

3.9 MAINTENANCE OF POLLUTION FACILITIES

The Contractor shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.10 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel shall be trained in all phases of environmental protection. The training shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and

contractual, and installation and care of facilities, devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental pollution control.

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01451

CONTRACTOR QUALITY CONTROL

04/01

-- End of Section Table of Contents --

SECTION 01451

CONTRACTOR QUALITY CONTROL

04/01

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740	(1996) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E 329	(1995b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with SECTION 01330 SUBMITTAL PROCEDURES:

SD-08 Statements

Contractor Quality Control (CQC) Plan; GA

The quality control plan shall be prepared in accordance with PARAGRAPH: QUALITY CONTROL PLAN.

Laboratory Quality Management Manual; FIO

The manual as specified in PARAGRAPH: TESTS - TESTING LABORATORIES - CAPABILITY CHECK shall be submitted.

SD-18 Records

Documentation of work; FIO

a. Construction Quality Control Management Report

b. CQC Report

c. Preparatory Phase Checklist

d. Initial Phase Checklist

Daily records and weekly reports shall be prepared in accordance with PARAGRAPH: DOCUMENTATION

1.3 PAYMENT

The Contractor shall be responsible for the work for the work of this section, without any direct compensation being made other than the payment received for contract items.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both on site and off site, and shall be keyed to the proposed construction sequence. The project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The project superintendent in this context shall mean the individual with the responsibility for the overall management of the project including quality and production.

3.2 QUALITY CONTROL PLAN

3.2.1 General

The Contractor shall furnish for review by the Government, not later than 15 days after receipt of notice to proceed, the CQC Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Government will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

3.2.2 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both on site and offsite, including work by

subcontractors, fabricators, suppliers, and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent or someone higher in the Contractor's organization.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with SECTION 01330: SUBMITTAL PROCEDURES.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 10 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both on site and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization which shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to acceptance by the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the on site work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a graduate engineer, graduate architect, or a graduate of construction management, with a minimum of 2

years experience in related duties on construction similar to this contract. or a person with a minimum of 5 years experience in related duties on construction work. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall not have duties as project superintendent in addition to quality control. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the CQC System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

3.4.3 Additional Requirement

In addition to the above qualifications, the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered through the Government in the Minneapolis - St. Paul, Minnesota metropolitan area.

3.4.4 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, shall be made as specified in SECTION 01330: SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.

b. A review of the contract drawings.

c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

d. Review of provisions that have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

g. A review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.

i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. Discussion of the initial control phase.

k. The Government shall be notified at least 48 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least 48 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work on site, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, on site production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a testing laboratory meeting the requirements listed under PARAGRAPH: CAPABILITY CHECK, or establish a testing laboratory at the project site meeting those requirements. The Contractor shall perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.

b. Verify that facilities and testing equipment are available and

comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329. The Contractor shall submit a Quality Management Manual meeting the requirements of ASTM D 3740 and ASTM E 329 for each laboratory to be used, including on-site project laboratories.

3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge of $1000.00 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

3.7.3 On Site Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials shall be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Contracting Officer. Coordination for each specific test, exact delivery location, and

dates will be made with the Contracting Officer.

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

Near the end of the work, or any increment of the work established by a time stated in the Special Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence

that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.

e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.

g. Off-site surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. Instructions given/received and conflicts in plans and/or specifications.

j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

The following sample forms are enclosed at the end of this section:

a. Construction Quality Control Management Report

b. CQC Report

c. Preparatory Phase Checklist

d. Initial Phase Checklist

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.12 IMPLEMENTATION OF GOVERNMENT RESIDENT MANAGEMENT SYSTEM FOR CONTRACTOR QUALITY CONTROL OF CONTRACT

The Contractor shall utilize the Contractor Quality Control (CQC) module of the Resident Management System (RMS). The RMS-CQC module is a computer program which is executable on IBM compatible computers with 80386, 80486 and Pentium processors. This module includes a daily CQC reporting form which must be used. The module shall be completed to the satisfaction of the Contracting Officer prior to any contract payment and shall be updated as required. The Contractor shall complete module elements including:

Prime Contractor staffing
Subcontractor information, including name, address, trade, and point of contact
Submittal information, including description, activity number, review period, expected procurement period
Quality control testing
Definable features of work
Installed property listing
Transfer property listing
Pay activity and activity information
Planned cumulative progress earnings
Scheduled employee education required by the specifications
Insurance expiration dates

3.12.1 Revisions

The Contractor shall acknowledge receipt of Government comments relating to the RMS-CQC module by specific number reference on his Daily CQC report. The daily CQC report shall also report when corrections are implemented.

3.12.2 Pay Activity

The sum of all pay activity values shall equal the contract amount. Bid items may include multiple activities, but activities shall only be assigned to one bid item.

3.12.3 ATTACHMENTS

1. Contractor Quality Control Management Report

2. CQC Report

3. Prepartory Phase Checklist

4. Initial Phase Checklist

-- End of Section --

CONSTRUCTION QUALITY CONTROL MANAGEMENT REPORT

Contractor Production

Contractor's Name

_____

_____

Daily Report No:_____ Date:_____
Contract No.:_____

Project Title & Location: _____

Weather:_____ Precipitation:_____in. Temp.:_____Min._____Max.

1. Contract/Subcontractors and Area of Responsibility:

NUMBER:	TRADE	HOURS	EMPLOYER	LOCATION/DESCRIPTION OF WORK

2. Operating Plant or Equipment. (Not hand tools)

Plant/Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

CQC Report

1. Work performed today: (Indicate location and description of work performed by prime and/or subcontractors by letter in table above).

2. Results of control activities: (Indicate whether P - Preparatory, I - Initial, or F - Follow-up Phase. When a P or I meeting is conducted, complete attachment 1-A or 1-B, respectively. When network analysis system is used, identify work by use of I-J numbers)

3. Test performed as required by plans and/or specifications:

4. Material received:

CQC Report (Cont'd)

5. Submittals Reviewed:

(a) Submittal No.	(b) Spec/Plan Reference	(c) By Whom	(d) Action

6. Off-site surveillance activities, including action taken:

7. Job safety: (Report violations; Corrective instructions given; Corrective actions taken).

8. Remarks: (Instructions received or given. Conflict(s) in Plans and/or Specifications)

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.

CQC System Manager

PREPARATORY PHASE CHECKLIST

Contract No.: _____ Date: _____
Definable Feature: _____ Spec Section: _____
Government Rep Notified_____ Hours in Advance Yes ____ No ____

I. Personnel Present.

	Name	Position	Company/Government
1.			
2.			
3.			
4.			
5.			
6.			
7.			

(List additional personnel on reverse side)

II. Submittals.

1. Review submittals and/or submittal log 4288. Have all submittals been approved? Yes _____ No _____

If No, what items have not been submitted?
a._____
b._____
c._____

2. Are all materials on hand? Yes _____ No _____
a._____
b._____
c._____

3. Check approved submittals against delivered material. (This should be done as material arrives).

Comments:_____

III. Material Storage.
Are materials stored properly? Yes _____ No _____
If No, what action is taken?

_____

Preparatory Phase Checklist (Cont'd)

IV. Specifications.

1. Review each paragraph of specifications.

2. Discuss procedure for accomplishing the work.

3. Clarify any differences.

V. Preliminary Work.
Ensure preliminary work is correct.
If not, what action is taken?

VI. Testing.

1. Identify test to be performed, frequency, and by whom.
2. When required?
3. Where required?
4. Review Testing Plan.
5. Has test facilities been approved?

VII. Safety.
1. Review applicable portion of EM 385-1-1.
2. Activity Hazard Analysis approved? Yes _____ No _____

VIII. Corps of Engineers comments during meeting.

CQC System Manager

INITIAL PHASE CHECKLIST

Contract No.:_____ Date:_____

Definable Feature:_____

Government Rep Notified:_____ Hours in Advance Yes_____ No _____

I. Personnel Present:

	Name	Position	Company/Government
1.			
2.			
3.			
4.			
5.			
6.			

(List additional personnel on reverse side)

II. Identify full compliance with procedures identified at preparatory. Coordinate plans, specifications, and submittals.
Comments: _____

III. Preliminary Work. Ensure preliminary work is complete and correct.
If not, what action is taken? _____

IV. Establish Level of Workmanship.
1. Where is work located? _____
2. Is a sample panel required? Yes _____ No_____
3. Will the initial work be considered as a sample? Yes_____No_____
(If yes, maintain in present condition as long as possible).

V. Resolve any Differences.
Comments:_____

Review job conditions using EM 385-1-1 and job hazard analysis.
Comments: _____

_____
CQC System Manager

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

04/01

-- End of Section Table of Contents --

SECTION 01500

TEMPORARY CONSTRUCTION FACILITIES

04/01

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with SECTION 01330: SUBMITTAL PROCEDURES:

SD-04 Drawings

Site Plan; FIO.

The Contractor shall prepare a site plan indicating the proposed location and dimensions of any area to be fenced and used by the Contractor, the number of trailers to be used, avenues of ingress/egress to the fenced area and details of the fence installation. Any areas which may have to be graveled to prevent the tracking of mud shall also be identified. The Contractor shall also indicate if the use of a supplemental or other staging area is desired.

Government Field Office; FIO.

The Contractor shall submit a preliminary plan and description of the mobile office facilities which it proposes to furnish prior to proceeding with procurement thereof.

1.2 AVAILABILITY AND USE OF UTILITY SERVICES

1.2.1 Temporary Electrical Facilities

The Contractor shall be responsible for coordination and costs for electrical power required for the Contractor's operations, including all costs for utility company hookup, installation/dismantling of transformers and distribution lines. In general, the Contractor shall establish it's own service connection with the utility company. If the Contractor proposes to use an existing Government service connection, a request shall be submitted for approval to verify the Contractor's use will not interfere with operation of the facilities, and the monthly service fees will be paid for in whole (including Government power consumption) by the Contractor.

1.2.2 Sanitation

The Contractor shall provide and maintain within the construction area

field-type sanitary facilities in accordance with EM 385-1-1. These facilities shall include but not be limited to toilet, washing, and drinking water facilities.

1.2.3 Telephone

The Contractor shall make arrangements and pay all costs for their telephone facilities desired. Government personnel will not take or deliver messages for the Contractor.

1.3 PROTECTION AND MAINTENANCE OF TRAFFIC

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flag men, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the State and local authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with public traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads.

1.3.1 Haul Roads

The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control, although optional, shall be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

1.3.2 Barricades

The Contractor shall erect and maintain temporary barricades to limit public access to hazardous areas. Such barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

1.4 CONTRACTOR'S TEMPORARY FACILITIES

1.4.1 Administrative Field Offices

The Contractor shall provide and maintain administrative field office facilities within the construction area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

1.4.2 Staging Area

The boundary limits of the grounds made available for the Contractor's use during the life of the contract are shown on the drawings as Work Limits. Trailers, materials, or equipment shall not be placed or stored outside the work limits.

1.5 PLANT COMMUNICATION

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

1.6 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall furnish and erect temporary project safety fencing at the work site. The safety fencing shall be a high visibility orange colored, high density polyethylene grid or approved equal, a minimum of42-inches high, supported and tightly secured to steel posts located on maximum 10-foot centers, generally located to encompass the active construction areas, as directed by the Contracting Officer. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the work, shall become the property of the Contractor and shall be removed from the work site.

1.7 PAYMENT

The Contractor shall be responsible for the work of this Section, without any direct compensation being made other than the payment received for contract items.

PART 2 PRODUCTS

2.1 BULLETIN BOARD, PROJECT SIGN, AND PROJECT SAFETY SIGN

2.1.1 Bulletin Board

Immediately upon beginning of work, the Contractor shall provide a weatherproof glass-covered bulletin board not less than36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the contract, Wage Rate Information poster, and other information approved by the Contracting Officer. The bulletin board

shall be located at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer. Legible copies of the aforementioned data shall be displayed until work is completed. Upon completion of work the bulletin board shall be removed by and remain the property of the Contractor.

2.1.2 Project and Safety Signs

The Contractor shall furnish and erect a Project sign and a Safety sign in a location selected by the Contracting Officer at the project site within 15 days after receipt of the notice to proceed. The requirements for the signs and their content shall be as shown on the drawings at the end of this section. The data required by the safety sign shall be corrected daily. Signs shall be maintained throughout the construction period, and upon completion of the project, the signs shall be removed from the site. The PROJECT DESCRIPTION and PROJECT NAME shall be as follows:

PROJECT DESCRIPTION: Flood Control Project
East Grand Forks, Minnesota

PROJECT NAME: Phase 1 Levees

2.2 GOVERNMENT FIELD OFFICE

The Contractor shall provide and maintain for the life of the contract an approved mobile office (mobile home style) meeting the following requirements as to space and facilities for the exclusive use of the government. The unit shall be ready for occupancy within 30 calendar days after notice to proceed. The unit shall provide a minimum of 400 square feet floor area and shall include two private offices, each having approximately 100 square feet of floor area and a storage closet. The unit shall have two entrance doors. The remaining space is to be utilized as one large office, a toilet room, a chest of drawers and a storage area for coats, etc. The unit shall be provided with a toilet room consisting of a stool and lavatory and an electric heater. The unit interior headroom shall be no less than a nominal 8'-0".

2.2.1 Location

The Contractor shall locate the portable mobile home type field office at or near the Contractor's field office site at a location approved by the Contracting Officer. Four parking spaces shall be reserved for Government vehicles at the Government trailer.

2.2.2 Construction.

The Government field office shall be similar in quality and age as the Contractor's field office, if provided. Exterior and interior finishes shall be free from color fade, chipping, or peeling. The unit shall be set level on blocking, be provided with plywood skirting, and be anchored to the ground for protection against wind damage. Exterior doors shall be provided with screens and outside hasps for use with padlocks. The unit shall be electrically wired for fluorescent ceiling lighting fixtures and weather proof porch lights at each entrance door, along with switches,

duplex convenience outlets, and a master switch and fuse box as required. The entire unit shall be adequately insulated with fiberglass insulation and vapor barrier. Dead air crawl space shall be properly ventilated. Heating and air conditioning facilities shall be provided to maintain an ambient inside temperature of 68 degrees F. The unit shall be weather proof, and furnished with a forced air type heating plant, either gas or oil with hot and cold air ducts adequate to supply even heat throughout the unit. Air conditioning shall be furnished with capacity as recommended by the manufacturer for the trailer size. A central air conditioning system shall be provided.

2.2.3 Utilities

The Contractor shall be responsible for service fees in connection with electrical power and heating (natural gas or oil service). The Contractor shall also be responsible for service fees in connection with the water supply, sanitary waste system, and telephone as indicated below. When available, city water and sewer system connections are preferred.

a. Sanitary Facilities. In the absence of a city sewer connection, holding tanks shall be provided. The lavatory shall discharge into an outside underground holding tank with a capacity of not less than 400 gallons and a vented drain. The Contractor shall provide year-round pumping of the holding tank as required. Subject to approval, a serviced chemical toilet may be used.

b. Potable Water. In the absence of a city water connection, a potable water storage tank of not less than 300 gallons capacity shall be furnished with adequate supply filling connections and screened vent, and shall be stainless steel or plastic with a drain cock of not less than ½ inch. Upon completion of the job, the Contractor shall remove the underground holding tank and backfill the excavation. The Contractor shall provide potable water for the storage tank if service connections are not provided.

c. Telephone. The Contractor shall be responsible for installation of telephone at the Government office. The telephone hook-up should be placed on a separate account from the Contractor's phone so that it can be transferred to the Government after installation. The Government will be responsible for the telephone service to the Government field office after installation.

2.2.4 Furnishings.

The following furnishings shall be provided for the Government office:

a. A hot and cold drinking water dispenser. The Contractor shall provide drinking water for the dispenser for the duration of the contract.

b. Bulletin board, minimum size 6 square feet.

c. A cabinet shall be supplied along a side wall with minimum nominal dimensions 2 feet wide, 3 feet high and 6 feet long. The cabinet shall include a finished wood or laminate counter. Two shelves, one above

and one below the cabinet, shall be provided for storage.

d. Sign. The Contractor shall securely attach to the unit exterior and adjacent to the main entrance door, as approved, a 24 inch by 36 inch sign with the Corps of Engineers castle insignia with wording as specified.

e. Stoop. A stoop with 8 inch risers and handrails shall be provided at each entrance door.

f. Windows. All windows shall be provided with sash and security screens along with shades, blinds or similar features that allow for the complete coverage of the windows on the inside.

g. Lavatory. A 5 by 24 inch metal shelf and 15 by 20 inchwood or metal framed plate glass mirror shall be provided above the lavatory.

2.2.5 Furniture

Office furniture shall be coordinated with respect to style, color, and upholstery. The following furniture shall be provided:

a. Two desks either wood or steel, double pedestal type, top approximately 60 inches by 34 inches, with lock.

b. Two swivel armchairs with tilting seat and adjustable spring back.

c. Two filing cabinets, four-drawer legal size, with lock.

d. One drafting table stool, non-tilting, rotary type with back and circular footrest.

e. One drafting table, metal and/or wood, 36 inches by 48 inches.

f. One conference table, 3/4 inch thick by 72 inches long by 36 inches wide with solid core construction top.

g. Eight chairs for conference table, either wood or steel construction, with cushioned seat and backrest.

h. One rack for hanging full size drawings.

2.2.6 Office Equipment

The following equipment shall be provided:

a. One desk top facsimile (FAX) machine with modem BPS speeds of 9600,7200,4800, and 2400; an effective scanning width of 11.7 inches and line scanning density of 8 pels/mm horizontal and an effective scanning width of 7.7 inches and line scanning density of 3.85 lines/mm vertical. Initially supply four reams of paper(500 sheets per ream).

b. One desk top copying machine with an indirect dual component dry tone process. Paper copy sizes shall be a maximum of 11 inches by 17

inches and a minimum of 4.25 inches by 5.5 inches. The machine shall have a halogen lamp light source and an automatic sheet feed (single cassette). Initially supply four reams (500 sheets per ream) of white copying paper and furnish a complete maintenance service contract/agreement for the machine.

c. One personal computer, minimum 433 megahertz, 4 gigabyte hard drive, 64 megabyte of RAM, CD ROM Reader; 17" monitor (26 dot pitch maximum), mouse and keyboard. The software provided with the computer will be Microsoft "Windows 95" or better and Microsoft "Office Professional" or approved equivalent.

d. One laser printer, HP 4000N or approved equivalent.

2.2.7 Maintenance.

The Contractor shall maintain the field office for the life of the contract. The Contractor shall be responsible for maintaining and paying for all costs associated with the following services:

a. Supplies. Toilet paper, paper toweling, paper and supplies for the FAX and copy machines shall be provided. Supply water for the drinking water dispenser. Supply water for the lavatory if a service connection is not provided for potable water.

b. Maintenance of office equipment. Include a maintenance service contract/agreement for operation of the Fax and Copy machines.

c. Janitorial Service. The Contractor shall provide daily janitorial service and provide all janitorial and sanitary supplies as well as trash removal service.

d. Snow removal. Maintenance of site access including snow removal service is the responsibility of the Contractor.

e. Utilities. The Contractor is responsible for maintaining and paying all costs assocated with utility services including water supply, sanitary waste system, electrical power and natural gas or oil service.

2.2.8 Additional Requirements

a. The Contractor shall locate the portable mobile home type field office as directed by the Contracting Officer.

b. Four (4) parking spaces shall be reserved for Government vehicles at the Government trailer. If the Contractor requires more space, the Contractor shall prvide it at his own expense.

PART 3 EXECUTION

3.1 CLEANUP

Construction debris, waste materials, packaging material and the like shall

be removed from the work site. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above or at the supplemental storage area. Stored material not in trailers, whether new or salvaged, shall be neatly stacked when stored.

3.2 RESTORATION OF STORAGE AREA

Upon completion of the project and after removal of trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse grassed areas shall be removed and the area restored to its original condition, including top soil and seeding as necessary.

3.3 ATTACHMENTS

1. Project Sign

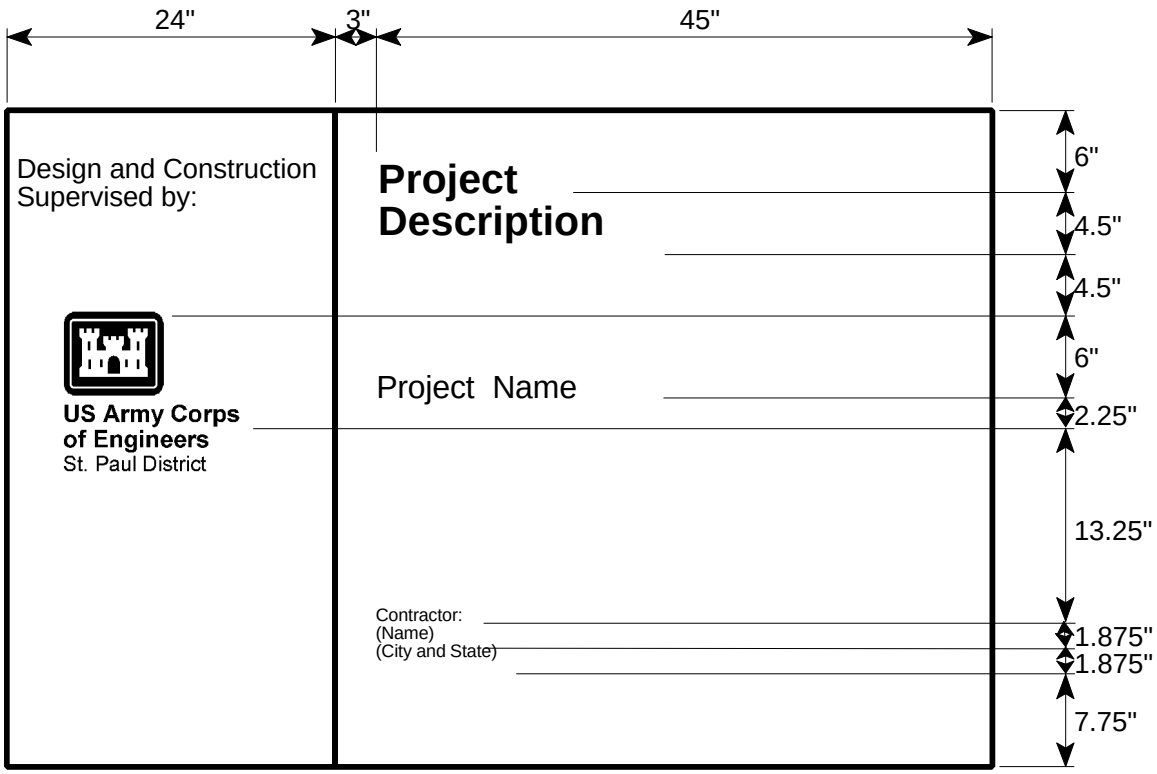
2. Safety Sign

3. Sign Erection Details

-- End of Section --

PROJECT SIGN

The graphic format tor this 4' x 6' sign panel follows the legend guidelines and layout as specified below. The large 4' x 4' section of the panel on the right is to be white with black legend. A 2' x 4' decal provided by the Corps shall be placed on the left side of the sign panel.



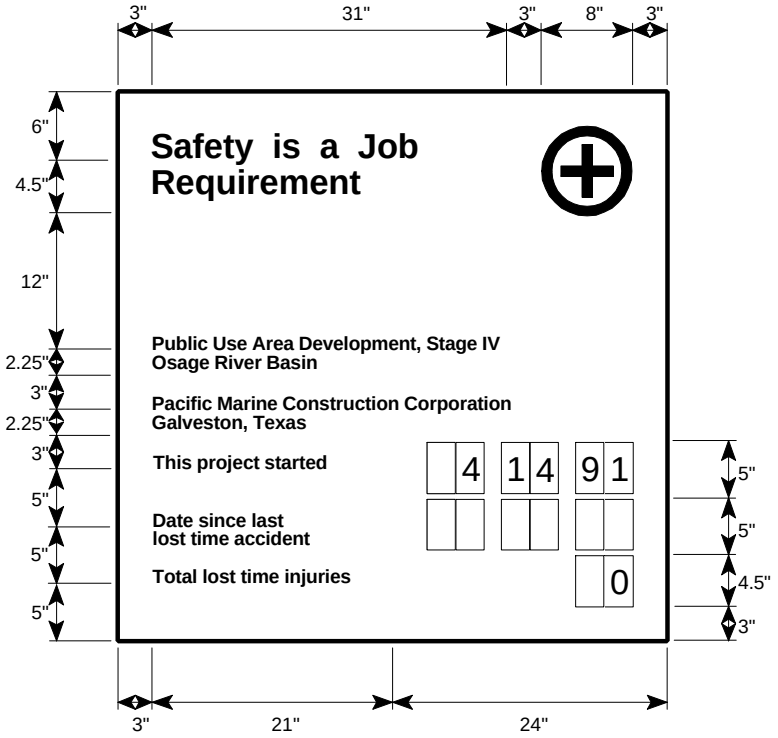
Project Description:
One to three line project title legend describes the work being done under this contract.
Color: Black; Typeface: 3" Helvetica Bold; Maximum line length: 42".

Project Name:
One to three line identification of project or facility.
Color: Black; Typeface: 1.5" Helvetica Bold; Maximum line length: 42".
Cross-align the first line of PROJECT NAME with the first line of the Corps Signature as shown.

Contractor:
One to five line identification of prim e contractors including: type (architect, general contractor, etc.), corporate or firm name, city, state.
Color: Black; Typeface: 1.25" Helvetica Bold; Maximum line length: 21".

All typography is flush left and ragged right, upper and lower case with initial capitals only as shown. Letter and word spacing to follow Corps Standards (EP 310-1-6a and 6b).

SAFETY SIGN



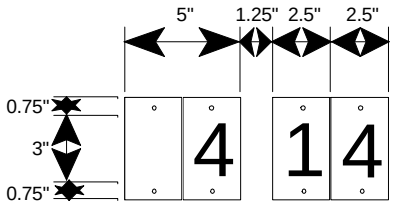
All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter and word spacing to follow Corps Standards (EP 310-1-6a and 6b).

Legend Group 1: Standard two-line title "Safety is a Job Requirement" with (8" od.) Safety Green First Aid logo. Typeface: 3" Helvetica Bold; Color: Black.

Legend Group 2: One- to two-line project title legend describes the work being done under this contract and name of host project. Typeface: 1.5" Helvetica Regular; Color: Black; Maximum line length: 42".

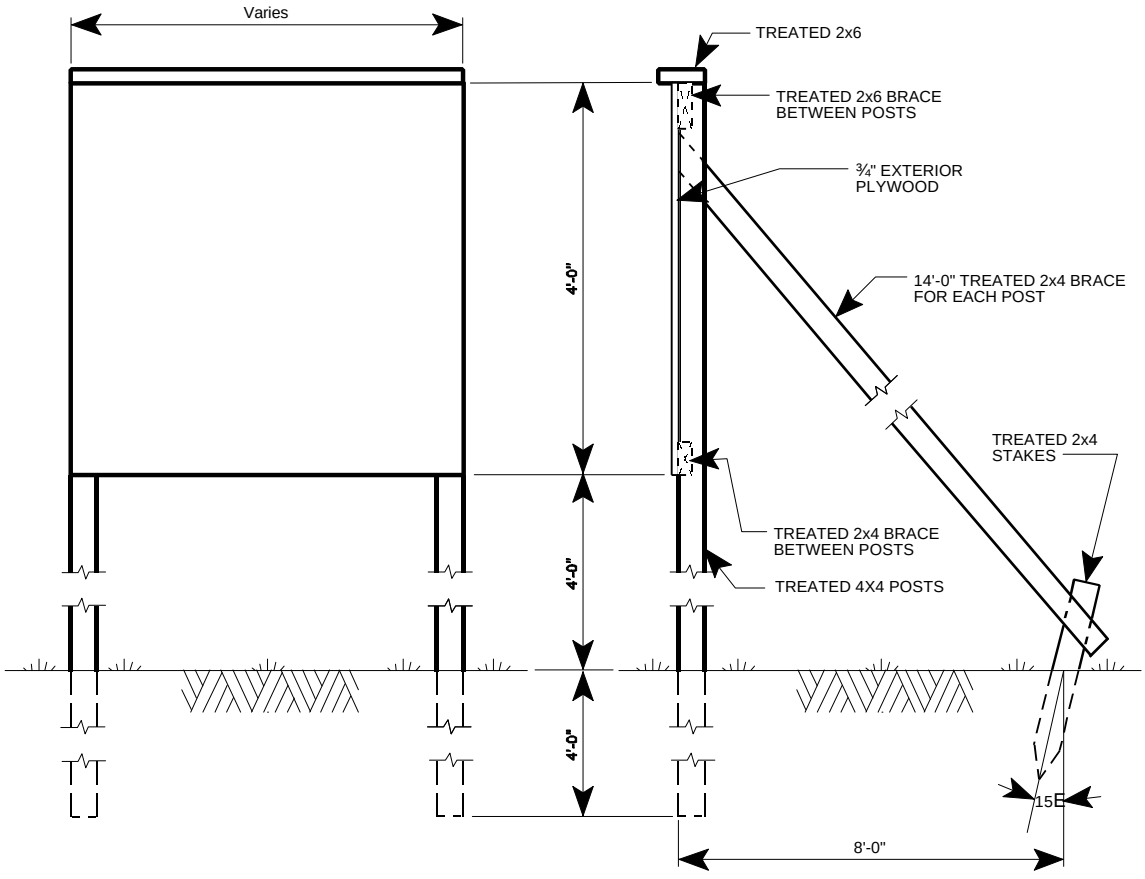
Legend Group 3: One- to two-line identification: name of prime contractor and city, state address. Typeface: 1.5" Helvetica Regular; Color: Black; Maximum line length: 42".

Legend Group 4: Standard safety record captions as shown. Typeface: 1.25" Helvetica Regular; Color: Black.



Replaceable numbers are to be mounted on white 0.060 aluminum plates and screw-mounted to background. Typeface: 3" Helvetica Regular; Color: Black; Plate size: 2.5" x 4.5".

SIGN ERECTION DETAILS



SECTION TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01567

MINNESOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

04/01

-- End of Section Table of Contents --

SECTION 01567

MINNESOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM
04/01

PART 1 GENERAL

1.1 GENERAL

This section covers best management practices to be implemented for prevention of storm water pollution as required by the National Pollutant Discharge Elimination System (NPDES). The Minnesota Pollution Control Agency is responsible for administering permits for NPDES in the state of Minnesota. The Government has determined that the project work included under this contract requires NPDES permitting. The requirements herein supplement those covered in SECTION 01410: ENVIRONMENTAL PROTECTION.

1.1.1 Definitions

The following terms apply to this specification and the general permit, unless redefined in subsequent paragraphs.

a. "Plan" means the Temporary Erosion and Sediment Control Plan.

b. "EPA" means the United States Environmental Protection Agency.

c. "MPCA" means the Minnesota Pollution Control Agency.

d. "NPDES" means the National Pollutant Discharge Elimination System.

e. "MPDES" means the Minnesota Pollutant Discharge Elimination System.

f. "Owner" as referred to in the general permit shall mean the Federal Government.

g. "Permittees" as referred to in the general permit shall mean the Federal Government and Contractor.

h. "General Permit" means the general permit authorization to discharge storm water associated with a construction activity under the National Pollutant Discharge Elimination System/State Disposal System Permit Program.

j. "BMP" means Best Management Practices.

1.1.2 Contract Drawings

The following features are shown on or can be determined from the contract drawings:

a. The drainage patterns and approximate slopes anticipated after the major grading activities.

b. Areas of soil disturbance.

c. The location(s) where stabilization practices are expected to occur.

d. Typical details showing suggested Best Management Practices (BMP's) for erosion and sediment control.

e. Waters of the State.

f. Final site stabilization.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA/832/R-92/005	Storm Water Management for Construction Activities - Developing Pollution Prevention Plans and Best Management Practices

MINNESOTA DEPARTMENT OF TRANSPORTATION (MNDOT)

MNDOT 3885	Standard Specifications for Construction (1995 Edition), Erosion Control Blankets
MNDOT 3886	Standard Specifications for Construction (1995 Edition), Silt Fence
MNDOT 3887	Standard Specifications for Construction (1995 Edition), Flotation Silt Curtain

1.3 SUBMITTALS

Government approval is required for all submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-04 Drawings

Temporary Erosion And Sediment Control Plan; FIO.

A specific Temporary Erosion and Sediment Control Plan shall be submitted in accordance with PARAGRAPH: PERMIT COMPLIANCE AND ADDITIONAL REQUIREMENTS.

SD-18 Records

Application; GA.

A copy of the Application for General Storm Water Permit for Construction Activity (MPCA Form PQ00641) shall be submitted to the Contracting Officer at the same time it is transmitted to the state.

Notice of Termination; FIO.

A copy of the notice of termination shall be submitted to the Contracting Officer at the same time it is transmitted to the state.

1.4 PERMIT COMPLIANCE AND ADDITIONAL REQUIREMENTS

The Contractor shall comply with the requirements of General Permit No. MNR100000. The following define additional requirements and clarify which requirements of the General Permit are to be performed by either the Contractor, the Government, or both.

1.4.1 Schedule

No contract project construction activities which requires an NPDES permit may commence until the MPDES permit is valid.

1.4.2 Temporary erosion and sediment control plan

The contract drawings show a typical details of suggested best management practices (BMP's) for erosion and sediment control taken from EPA/832/R-92/005. The BMP's, together with applicable portions of the site drawings and specifications form an initial plan for temporary erosion and sediment control. The Contractor shall finalize and implement the plan. The finalized plan, together with documentation, shall be in accordance with the general permit. The plan shall be maintained at the site and made available to federal, state, and local officials as requested. The Contractor shall determine the specific BMP's for erosion and sediment control (including the types, locations, and installation scheduling of erosion and sediment controls). These BMP's and corresponding material specifications and shop drawings shall be included in the Plan.

1.4.3 Application

The Application for General Storm Water Permit for Construction Activity must be signed by the Government and the Contractor. A blank copy of the application form is included at the end of this section. Immediately after contract award, the Contractor shall complete parts I, II and V of the application form, obtain signature by the Government, and submit the form to the state. The application shall be post marked at least 48 hours in advance of any ground breaking activities. The Contractor is responsible for payment of the application fee.

1.4.4 Permanent erosion and sediment control plan

The Government has developed the Permanent Erosion and Sediment Control Plan and will maintain availability of the plan to federal, state, and local officials as required in the General Permit.

1.5 MEASUREMENT AND PAYMENT

The contactor shall be responsible for the work of this section, without any direct compensation being made other than the payment received for contract items.

PART 2 PRODUCTS

2.1 SILT FENCE

Silt fence shall be manufactured and installed as shown on drawings. On level sites with minimal potential for sediment loading, the wire fabric may be omitted. Fabric for silt fence shall conform to requirements given in MNDOT 3886.

2.2 STRAW BALES

Straw shall be baled from oats, wheat, rye, barley, rice, or other coarse fiber vegetation that will percolate water. Hay baled from grass, alfalfa and clover is not acceptable.

2.3 OTHER PRODUCTS

Any products proposed for use that are not included on drawing Z2-22 shall be described fully, with catalog cuts and manufacturer's instructions for use, in the temporary erosion and sediment control plan. Other products, if proposed in the final plan, shall meet the following requirements:

Erosion control blankets shall meet MNDOT 3885
Floatation Silt Curtain shall meet MNDOT 3887

PART 3 EXECUTION

As between the Government and the Contractor, the Contractor shall be responsible for fulfilling the obligations of the general permit for the following sections:

Part I-C: Records
Part I-D: Erosion and Sediment Control During Construction
Part I-E: Inspection and Maintenance
Appendix A: Temporary Erosion and Sediment Control Plan

3.1 IMPLEMENTATION

The Contractor shall install the sediment and erosion control system in accordance with the plan submitted to the Contracting Officer. The BMP's shall be modified if inspection indicates distress to the system or reveals unforeseen circumstances, or if directed by the Contracting Officer. Any updates to the plan shall be recorded. Permanent stabilization shall be initiated as soon as practicable in any portion of the site where construction activities are complete.

3.2 MAINTENANCE

The Contractor shall be responsible for implementing and managing the erosion and sediment control BMP's before and during the construction activities; and ensure that the Plan will be implemented and stay in effect until the work has been completed, the entire work site has undergone final stabilization, and a Notice of Termination has been submitted to the Contracting Officer and the state permitting authority.

3.3 RECORDS

The contractor shall record on CQC reports: (1) dates when major stripping and grading activities occur, (2) dates when construction activities temporarily or permanently cease on a portion of the site,(3) when permanent stabilization practices are initiated, and (4) activities associated with inspection and maintenance.

3.4 ATTACHMENTS

1. Application for General Storm Water Permit for Construction Activity (MDNR Form PQ00641 with instructions) 4 Pages

2. NPDES General Permit No. MN R100000 21 Pages

-- End of Section --

Application for General Storm Water Permit for Construction Activity (#MNR100000)

Minnesota Pollution Control Agency
520 Lafayette Road North; St. Paul, MN 55155-4194

I. Construction Site Information

1. Name of project: _____
2. Brief description of where the construction activity occurs (please include address, if available):

   _____

   _____
3. Indicate ALL cities, counties, and townships where the construction activity will take place:

   _____

   _____
4. Name of waterbody(s) that will receive storm water from the construction site:

   _____

   _____
5. Project start date: _____ Project completion date: _____ Area to be disturbed by project: _____ (in acres)

II. Prerequisites for Applying for a Permit

For the following questions, please refer to the **NPDES General Storm Water Permit** (MNR100000).

A "**No**" answer for any question will result in this form being returned to the owner with no permit issued to authorize the construction activity. This application will need to be completed and returned to the MPCA before a permit to authorize the construction activity may be issued.

6. Has a **Temporary Erosion and Sediment Control Plan** been developed for this project in accordance with Appendix A and incorporated into this project's final plans and specifications? **Yes** ☐ **No** ☐
7. Has a **Permanent Erosion and Sediment Control Plan** been developed for this project in accordance with Appendix B and incorporated into this project's final plans and specifications? **Yes** ☐ **No** ☐
8. Has the Application Fee been enclosed? **Yes** ☐ **No** ☐

III. Owner Information

Name _____ Telephone _____

Address _____

City _____ State _____ Zip Code _____

Contact Person _____ Telephone _____

IV. Owner Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person, or persons, who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete (Minnesota Rules part 7001.0070).

I also certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES) General Storm Water permit (MNR100000) that authorizes storm water discharges associated with the construction site identified on the front side of this form.

I understand that as a permittee, I am legally accountable under the Clean Water Act, to ensure compliance with the terms and conditions of the NPDES General Storm Water Permit (MNR100000).

I also understand that MPCA enforcement actions (pursuant to Minnesota Statutes sections 115.07, 116.072, and 609.71 and Section 309 of the Clean Water Act) may be taken against my company if the terms and conditions of the NPDES General Storm Water Permit (MNR100000) are not met.

Printed Name | Title (Manager, CEO, etc.)

Authorized Signature | Date

V. General Contractor Certification

I certify under penalty of law that I have read, understood, and accepted all terms and conditions of the National Pollutant Discharge Elimination System (NPDES) General Storm Water permit (MNR100000) that authorizes storm water discharges associated with the construction site identified on this form.

I understand that for Parts I.B. through I.E, Appendix C, and Appendix D of the General Storm Water Permit (MNR100000) I am becoming a co-permittee with the owner of the facility for which I have been contracted to perform professional construction services. As a co-permittee I understand that my company is legally accountable, under the Clean Water Act, to ensure compliance with the terms and conditions of the General Storm Water Permit (MNR100000).

I also understand that MPCA enforcement actions (pursuant to Minnesota Statutes sections 115.07, 116.072, and 609.71 and Section 309 of the Clean Water Act) may be taken against my company if the terms and conditions of the NPDES General Storm Water Permit (MNR100000) for which I am a co-permittee, are not met.

Company or Firm | Telephone

Printed Name | Title (Manager, CEO, etc.)

Authorized Signature | Date

Address

City | State | Zip Code

Contact Person | Telephone

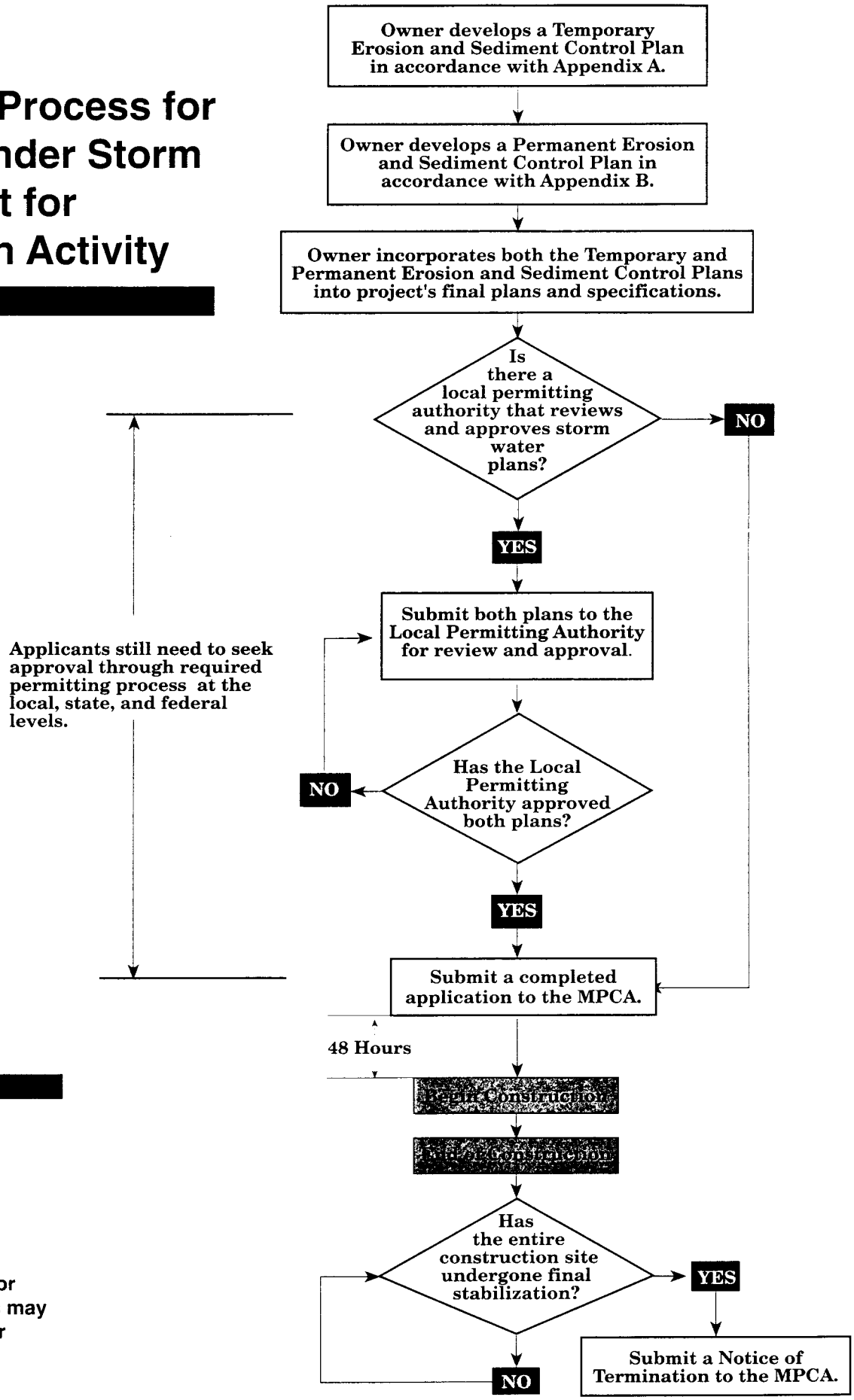
Submit to: MPCA, Water Quality Division, Industrial Section, 520 Lafayette Road North, St. Paul, MN 55155-4194

Application Instructions for General Storm Water Permit

CONSTRUCTION ACTIVITY

Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155-4194

Application Process for Coverage Under Storm Water Permit for Construction Activity



For additional information call:

(612) 296-7219 or
1-800-657-3804

People with speech or hearing impairments may call (612) 282-5332 or
1-800-627-3529

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Minnesota Pollution Control Agency

GENERAL PERMIT

AUTHORIZATION TO DISCHARGE

STORM WATER ASSOCIATED WITH A CONSTRUCTION

ACTIVITY UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION

SYSTEM/STATE DISPOSAL SYSTEM PERMIT PROGRAM

ISSUANCE DATE: September 4, 1998 **EXPIRATION DATE: September 4, 2003**

In compliance with the provisions of the Clean Water Act, as amended, (33 U.S.C. 1251 et seq., hereinafter, the "Act"); 40 CFR 122, 123, and 124, as amended, et seq., Minnesota Statutes Chapters 115 and 116, as amended, and Minnesota Rules Chapter 7001;

This permit establishes conditions for discharging storm water to waters of the state from construction activities which disturb five or more acres of total land area.

This permit DOES NOT authorize:

1) Discharges or releases that are not **storm water** as defined on Page 18 (see "Prohibitions" on Page 14 of this permit).

2) The placement of fill into **waters of the state**.

Unless notified by the **Agency** to the contrary, applicants who submit a complete **application** form in accordance with the requirements of this **permit** are authorized to discharge **storm water** from construction sites under the terms and conditions of this **permit** 48 hours after the date the application is postmarked.

Coverage under this permit will remain in effect until construction is complete, the site has undergone **final stabilization**, all maintenance activities required in Part I.E. have been completed, and the **Permittee** has submitted a **Notice of Termination**, regardless of the above expiration date.

Signature: John N Holck

John N. Holck, Manager
South District
Operations & Planning/Major Facilities

for

Peder A. Larson
Commissioner
Minnesota Pollution Control Agency

If you have questions on this permit, including the specific permit requirements, permit reporting or permit compliance status, please contact:

Minnesota Pollution Control Agency
Metro District, Storm Water Permit Program
520 Lafayette Road North
St. Paul, MN 55155-4194
Telephone (651) 296-3890
Fax (651) 297-8701

Table of Contents

I. REQUIREMENTS OF THIS PERMIT

A. PREREQUISITES FOR SUBMITTING A PERMIT APPLICATION

Failure to complete the following prerequisites prior to submitting the **application** will result in the **application** being returned, and the construction project NOT authorized by this **permit**.

1. The **owner** must develop a Temporary **Erosion** and **Sediment Control** Plan in accordance with "Appendix A." The plan requirements must be incorporated into the project's **final plans and specifications** and implemented as part of the project.

2. The **owner** must develop a Permanent Erosion and Sediment Control Plan in accordance with "Appendix B." The plan requirements must be incorporated into the project's **final plans and specifications** and implemented as part of the project.

The above plans are NOT to be submitted to the Agency but are to be retained by the owner in accordance with Appendices A and B; "Plan Retention."

B. APPLICATION FOR COVERAGE

1. The **owner** and **general contractor** are responsible for submitting a completed **application** form (or a photocopy thereof) to the Minnesota Pollution Control Agency (MPCA) for each project which disturbs five (5) or more acres of land.

2. The **owner** who signs the **application** is responsible for compliance with all terms and conditions of this **permit**. The **general contractor** who signs the **application** is a Co-Permittee for Parts I.B. through I.E., Appendix C, and Appendix D of this **permit**. and is responsible for compliance with those portions of this **permit**.

3. This permit will become effective 48 hours after the postmarked date of the completed **application** form containing "Yes" responses to questions 6, 7, and 8. A "No" response to question 6, 7, or 8 will result in the application being returned to the owner, and no permit will be issued to authorize the construction. No construction which requires an NPDES permit may commence unless authorized by an NPDES permit.

4. Permittees will receive a "Notice of Storm Water Permit Coverage" card acknowledging permit coverage within 30 days of the postmarked date of the completed **application**. (See I.D.3. for posting requirements.) A photocopy of this card must be provided by the **owner** to the **local permitting authority**, where applicable, within 14 days of receipt.

C. RECORDS

1. The project's **final plans and specifications** which incorporate the requirements of the Temporary Erosion and Sediment Control Plan and Permanent Erosion and Sediment Control Plan must be:

   a. available at the construction site in either the field office, or, inspector's vehicle, or contractor's vehicle, and,

   b. available to federal, state, and local officials (in accordance with Appendix D, Subpart C) for inspection for the duration of this permit.

2. The following plans/records must be made available to federal, state and local officials within 24 hours of request (in accordance with Appendix D, Subpart C.) for the duration of the permit:

   a. Temporary Erosion and Sediment Control Plan developed in accordance with Part I.A.1. (if a separate document from the project's **final plans and specifications**).

   b. Permanent Erosion and Sediment Control Plan developed in accordance with Part I.A.2.

   c. Records of all inspections (see Part I.E.). Records shall include:

      1) Date and time of inspections,
      2) Findings of inspections,
      3) Corrective actions taken (including dates and times)
      4) Documentation of changes to the Temporary Erosion and Sediment Control Plan made during construction.

   d. Date of all rainfall events.

3. The "Notice of Storm Water Permit Coverage" card shall be posted at any of the following locations:

   a. construction site entrance and visible from the nearest public roadway
   b. visible from the nearest public roadway, where no construction site entrance exists
   c. field office (if applicable)
   d. for linear utility and non-contiguous municipal projects, at the office responsible for project administration.

D. EROSION AND SEDIMENT CONTROL DURING CONSTRUCTION

1. Erosion Control

a. The **Permittee(s)** shall use, where possible, horizontal slope grading, construction phasing, and other construction practices that minimize **erosion.**

b. Unless precluded by snow cover, all **exposed soil areas*** with a continuous positive slope within 100 lineal feet from a **water of the state**, or from a curb, gutter, storm sewer inlet, temporary or permanent drainage ditch or other **storm water** conveyance system, which is connected to a water of the state, shall have **temporary protection** or **permanent cover** for the **exposed soil areas** within the following time frames:

Type of Slope	Temporary protection or permanent cover where the area has not been, or will not be, worked by the contractor for:
Steeper than 3:1	7 days
10:1 to 3:1	14 days
Flatter than 10:1	21 days

*For the purposes of this provision, **exposed soil areas** do not include stockpiles or surcharge areas of sand, gravel, aggregate, concrete or bituminous.

c. The bottom of any temporary or permanent drainage ditch constructed to drain water from a construction site must be stabilized within 100 lineal feet from a water of the state. Stabilization must be initiated within 24 hours of connecting the drainage ditch to **a water of the state,** existing gutter, storm sewer inlet, drainage ditch, or other **storm water** conveyance system which discharges to **waters of the state** and completed within five calendar days.

d. Prior to connecting any pipe to a **water of the state** or drainage ditch, the pipe's outlet must be provided with temporary or permanent **energy dissipation** to prevent erosion.

2. Sediment Control

a. **Sediment control best management practices (BMPs)**, which prevent **sediment** from entering a **water of the state**, gutter, storm sewer inlet, ditch or other storm water conveyance system, shall be established on all down-gradient perimeters before any up-gradient land disturbing activities begin, and shall remain in place until final stabilization has been established.

b. The Permittee shall minimize vehicle tracking of **sediment** or **soil** off site at locations where vehicles exit the construction site onto **paved surfaces**.

c. Where 10 or more contiguous acres of **exposed soil** are contributing to a discernible point of **discharge**, temporary sedimentation basins* must be provided prior to the runoff leaving the construction site or entering **waters of the state**.

These sedimentation basins shall comply with the following:

1) Basins shall provide 1800 ft^3 per acre drained of hydraulic storage below the outlet pipe. For roadways, the use of adjacent drainage ditches with riser pipes to accomplish this is acceptable.
2) Basin outlets shall be designed to prevent short circuiting and the **discharge** of floating debris. The outlet should consist of a perforated riser pipe wrapped with filter fabric and covered with crushed gravel. The perforated riser pipe should be designed to allow complete basin drawdown.

*While recommended, this provision will not be required for:

1) work on existing roadways where the 10 acre disturbed common drainage area is served by an existing storm sewer which is daylighted off the road's right-of-way, **or**,
2) proximity to bedrock or vertical relief precludes it, **or**,
3) final stabilization will be established within 30 days of the initiation of construction activity.

E. INSPECTIONS AND MAINTENANCE

1. Except where work has been suspended due to frozen ground conditions, the **Permittee(s)** shall inspect the construction site once every seven (7) days and within 24 hours after every rain event, which results in runoff leaving the construction site or entering **waters of the state**. The **Permittee** shall investigate and comply with the following inspection and maintenance requirements:

   a. Inspection Requirement: All **erosion** and perimeter **sediment control BMPs** to ensure integrity and effectiveness.

      Maintenance Requirement: All nonfunctional perimeter **sediment control BMPs** shall be repaired when the sediment reaches 1/3 of the height, or replaced, or supplemented with functional **BMPs** within 24 hours of discovery. All nonfunctional **erosion control BMPs** shall be repaired, replaced, or supplemented with functional **BMPs** as soon as field conditions allow access.

   b. Inspection Requirement: All temporary sedimentation basins to ensure effectiveness.

      Maintenance Requirement: When the depth of sediment collected in the basin reaches 1/2 the height of the riser, or 1/2 the storage volume, the basin shall be drained and the sediment removed. Drainage and removal shall be completed within 72 hours of discovery, or as soon as field conditions allow access.

   c. Inspection Requirement: Drainage ditches and other **waters of the state** for evidence of **sediment** leaving the site.

      Maintenance Requirement: Unless the project has received approval or certification for depositing fill into waters of the state, the **Permittee** shall remove all deltas and **sediment** deposited in drainage ways, catch basins, or **waters of the state**, and restabilize the areas where **sediment** removal results in **exposed soil**. The removal and stabilization shall take place within seven (7) days of discovery unless precluded by legal, regulatory, or physical access restraints. If precluded, removal and stabilization must take place within seven calendar days of obtaining access. The Permittee is responsible for contacting all local, regional, state and federal authorities prior to working in waters of the state, and receiving any applicable permits.

d. Inspection Requirement: Construction site vehicle exit locations for evidence of off-site **sediment** tracking onto paved **surfaces**.

Maintenance Requirement: Tracked **sediment** shall be removed from paved **surfaces**, which do not drain back into the construction site, within 24 hours of discovery.

2. Where parts of the construction site have undergone **final stabilization**, but work remains on other parts of the site, inspections of the stabilized areas may be reduced to once per month.

3. Where work has been suspended due to frozen ground conditions, the inspections and maintenance required in Part I.E.1. above shall take place as soon as weather conditions warrant or prior to resuming construction.

4. Unless required to remain in place by the **owner** or **local permitting authority**, all temporary synthetic, structural, and nonbiodegradable **erosion** and **sediment control BMPs** shall be removed after the site has undergone **final stabilization**.

5. After the entire project has undergone **final stabilization**, all temporary sedimentation basins to be used as permanent water quality management basins must be cleaned out by the **Permittee** to provide the sediment storage capacity required in Part I.D.2.c.2. **Permittees** are responsible for the maintenance of water quality management **BMPs** until construction is complete, the site has undergone **final stabilization**, and a **Notice of Termination** has been submitted to the **Agency**.

F. DURATION OF PERMIT COVERAGE

The **owner** and **general contractor** are responsible for complying with their respective portions of this permit until construction is complete, all maintenance activities required in Part I.E. are complete, the site has undergone **final stabilization** and a **Notice of Termination** is submitted to the **Agency**.

G. APPENDICES INCORPORATED BY REFERENCE

Appendices A, B, C, and D are incorporated into this permit by reference and are made both integral and enforceable parts of this permit.

APPENDIX A

TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

(Completed prior to submittal of an application)

A. GOAL: The goal of the Temporary Erosion and Sediment Control Plan is to prevent **sediment** from entering **waters of the state** during construction. The **owner** shall incorporate **Best Management Practices (BMPs)** into the project's **final plans and specifications**, which are designed to meet this goal and comply with Parts I.D. and I.E. of this **permit**. While the general requirements are identified in Parts I.D. and I.E. of this **permit**, it is the **owner's** responsibility to select the appropriate **BMPs** which satisfy these requirements.

B. ASSIGNING RESPONSIBILITY

When developing bidding documents or other contracts, the **owner** must identify who will implement and manage the **erosion** and **sediment control BMPs** before and during construction; and ensure that the plan will be implemented and stay in effect until the construction project is complete, the entire site has undergone **final stabilization**, and a **Notice of Termination** has been submitted to the Agency. In addition, the **final plans and specifications** must clearly identify who will be responsible for the maintenance requirements identified in Part I.E. of this permit.

C. PLAN CONTENTS

The Temporary **Erosion** and **Sediment Control** Plan, if developed as a document separate from the project's **final plans and specifications**, must be prepared for the proposed project. The plan must contain appropriate **BMPs** which comply with Parts I.D. and I.E. of this permit and contain **standard plates** and/or specifications of these **BMPs**.

1. **Standard plates** and/or specifications must be provided for all **BMPs**, selected by the designer to be used on the project, and at a minimum, must include the following:

   a. perimeter sediment control
   b. placement and type of **temporary cover**

2. Where applicable, **standard plates** and/or specifications must also be provided for the following:

   a. horizontal slope grading
   b. proposed stabilized vehicle entrances
   c. temporary sedimentation basins
   d. storm sewer pipe outlet energy dissipation
   e. storm sewer inlet control
   f. **erosion** and **sediment control** requirements for stockpile areas

D. FINAL PLANS AND SPECIFICATIONS

The above **standard plates** and/or specifications are to be incorporated into the project's **final plans and specifications.** In addition, the **final plans and specifications** shall clearly denote:

1. Location and type or the procedures to establish the location and type of all **erosion** and **sediment control BMPs.**

2. Existing and final grades, including dividing lines and direction of flow for all **storm water** runoff drainage areas located within the project limits.

3. Locations of areas not to be disturbed or areas where construction will be staged to minimize duration of **exposed soil areas.**

4. All **waters of the state,** including existing wetlands identified on the National Wetlands Inventory Map, within one-half mile from the exposed construction area which will receive direct **storm water** runoff from the construction site during construction.

   Where waters of the state, including wetlands, which will receive the direct runoff will not fit on a plan sheet, they shall be identified with an arrow, indicating both direction and distance.

5. Timing for installation of all **erosion** and **sediment control BMPs** required in Part I.D.

E. PLAN RETENTION

The owner shall keep a copy of the Temporary **Erosion** and **Sediment Control** Plan and all changes to it for three years after completion of the construction project.

F. CHANGES TO THE TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

Changes in the plan made during construction to accommodate phased construction, sequenced work, timing issues, or changed site conditions are allowable provided Parts I.D. through I.E. are complied with.

APPENDIX B

PERMANENT EROSION AND SEDIMENT CONTROL PLAN

(Completed prior to submitting an application)

A. GOAL: The goal of the Permanent Erosion and Sediment Control Plan is to protect Minnesota's water resources from pollutants generated from a project's ultimate development's impervious surfaces, change in land use, or changed ground cover.

B. ASSIGNING RESPONSIBILITY

When developing bidding documents or other contacts, the **owner** must identify who will maintain the water quality management **BMPs** until construction is complete, all maintenance activities required in Part I.E. are complete, the site has undergone **final stabilization**, and a **Notice of Termination** has been submitted to the **Agency**.

C. PLAN CONTENTS

The Permanent Erosion and Sediment Control Plan must be prepared for the proposed project, and may be developed as a separate document from the **final plans and specifications**. The plan must contain appropriate **BMPs** which satisfy the above goal, and contain **standard plates** and/or specifications of these **BMPs**. These **standard plates** and specifications must be incorporated into the project's **final plans and specifications**. At a minimum, the plan must contain:

1. Land feature changes (in acres) for both **before** and **after** construction:

   a. Total project area;
   b. Total **impervious surface** area of project;
   c. Total pervious area of project;
   d. Total estimated **impervious surface** area of ultimate development;
   e. Total estimated pervious area of ultimate development;

2. **Standard plates** and/or specifications of permanent erosion and sediment control BMPs below (Appendix B. C. 2a. 2b. and 2c.):

   a. **Sediment Control**
   Where a project's ultimate development replaces surface vegetation with one or more acres of cumulative impervious surface and all runoff has not been accounted for in a local unit of government's existing storm water management plan or practice, the runoff shall be discharged to a wet sedimentation basin* prior to entering waters of the state.

      1) Proposed Development

      Except as provided in 2) below ("Reconstruction or Work on Existing Roadways"), the wet sedimentation basin shall be based on the project's ultimate development and comply with the following requirements:

a) The basin's hydraulic volume shall be sufficient to capture a 1/2 inch of runoff from the impervious watershed area.
b) Basins shall also provide a minimum of 250 $ft.^3$ dead sediment storage volume below the basin's hydraulic volume/impervious acre drained.
c) Basin inlets shall be placed above the sediment storage volume.
d) Basin outlets shall be designed to remove all suspended solids greater than five microns with a settling velocity of 1.3×10^{-4} ft/sec.
e) Basin outlets shall also be designed to prevent short circuiting and the discharge of floating debris.
f) Basins must provide spillways to accommodate storm events in excess of the basin's hydraulic design.

2) Reconstruction or Work on Existing Roadways

* While recommended, the above provision (Appendix B.C.2a.) will not be required for work on existing roadways where:
1) the drainage area is served by an existing storm sewer which is daylighted off the road's right-of-way **or,**
2) proximity to bedrock or vertical relief precludes it, **or,**
3) existing right-of-way precludes it.

For these situations, however, the **owner** will be required to incorporate other sedimentation or treatment devices (i.e., grass swales, smaller sediment basins, etc.).

b. **Permanent Erosion Control**

1) All drainage ditches constructed to drain water from the site after construction is complete must be **stabilized.**

2) All pipe outlets must be provided with permanent **energy dissipation** where the pipe's outlet velocity will exceed the permanent cover's erosive velocity.

c. Treatment

The **owner** is required to provide treatment of storm water through the use of **BMPs** such as grass swales, wetlands constructed for the purpose of treating **storm water**, and the planting or development of emergent vegetation around the perimeter of the wet sedimentation basin's **sediment** storage volume.

Appendix B Appendix B Appendix B Appendix B Appendix B Appendix B Appendix B Appendix B Appendix B Appendix B Appendix B Appendix B

D. FINAL PLANS AND SPECIFICATIONS

The above standard plates and/or specifications are to be incorporated into the project's final plans and specifications. In addition, the final plans and specifications shall clearly denote:

1. Location and type of all permanent erosion and sediment control BMPs (Appendix B.C.2a., 2b. and 2c.).

2. The plan sheets must clearly identify all **waters of the state**, including wetlands identified on the National Wetlands Inventory Map within and one-half mile from the construction area which will receive direct **storm water** runoff from the construction site after construction is complete.

   Where the **waters of the state** which will receive the direct runoff and will not fit on the plan sheet, the resource shall be identified with an arrow, indicating both direction and distance.

3. Methods to be used for final stabilization of all exposed soil areas. For linear utility and roadway projects, final stabilization is not required on agricultural land which will be tilled within one year of project completion.

E. PLAN RETENTION

The owner shall keep a copy of the Permanent Erosion and Sediment Control Plan and all changes to it for three years after completion of the construction project.

F. CHANGES TO THE PERMANENT EROSION AND SEDIMENT CONTROL PLAN

Changes in the plan made during construction to accommodate changed site conditions are allowable provided all of Appendix B. is complied with.

APPENDIX C

PROVISIONS

A. APPLICABILITY CRITERIA

1. This permit covers storm water discharges associated with a construction activity which disturb **five (5) or more acres of land** in all areas of the state of Minnesota, except for agricultural/ silvicultural activities.

2. This is a National Pollutant Discharge Elimination System/State Disposal System general permit.

3. If the Commissioner determines that storm water discharges associated with a construction activity, or other activities, are contributing to a violation of a water quality standard or would be more appropriately regulated by an individual permit, the Commissioner may require a Permittee to be covered by an individual storm water discharge permit. The Commissioner may require a Permittee to develop and implement specific best management practices. Upon issuance of an individual permit, this general permit would no longer apply.

4. A permit applicant, or Permittee, may request an individual permit.

B. MPCA ADDRESS

Submit all forms, correspondence, reports, etc. to the following address:

Minnesota Pollution Control Agency
Water Quality Division
Attn: Construction Activity Storm Water Program
520 Lafayette Road North
St. Paul, Minnesota 55155-4194

C. RESPONSE

The Permittee shall respond to Agency requests for submittal of temporary and permanent erosion and sediment control plans and water quality management plans, certificates, reports, records, or other information required by this permit. Upon request, the Permittee shall also provide a copy of this information to the local permitting authority and municipal storm sewer operator.

D. AUTHORIZED DISCHARGES

All discharges of storm water associated with a construction activity shall be composed entirely of storm water.

E. PROHIBITIONS

Discharges of any material other than storm water, such as vehicle and equipment maintenance spills; wash water; oil and other hazardous substances are prohibited by this permit.

F. DEFINITIONS

1. **"Act"** means the Clean Water Act (formerly the Federal Water Pollution Control Act), United States Code, Title 33, Sections 1251 et seq., as amended.

2. **"Agency"** means the Minnesota Pollution Control Agency (MPCA).

3. **"Application"** means a completed application for activities regulated by this permit. Application forms are available from the Agency.

4. **"Best Management Practices (BMPs)"** means erosion and sediment control and water quality management practices that are the most effective and practicable means of controlling, preventing, and minimizing degradation of surface water, including construction-phasing, minimizing the length of time soil areas are exposed, prohibitions, and other management practices published by state or designated areawide planning agencies.

   Examples of BMPs can be found in **Protecting Water Quality in Urban Areas**, Minnesota Pollution Control Agency 1989, and **Storm Water Management for Construction Activities: Developing Pollution Prevention Plans and Best Management Practices**, U.S. Environmental Protection Agency 1992 as a reference for BMPs, and **Erosion Control Design Manual**, Minnesota Department of Transportation, et al, 1993.

5. **"Construction Activity"** means a disturbance to the land that results in a change in the topography, existing soil cover (both vegetative and non-vegetative), or the existing soil topography which may result in accelerated storm water runoff, leading to soil erosion and movement of sediment into waters of the state. Examples can include clearing, grading, filling and excavating.

6. **"Discharge"** means the conveyance, channeling, runoff, or drainage, of storm water, including snow melt, from a construction site.

7. **"Energy Dissipation"** means methods employed at pipe outlets to prevent erosion. Examples include, but are not limited to; aprons, riprap, splash pads, and gabions which are designed to prevent erosion.

8. **"Erosion"** means the wearing away of soil by rainfall, surface water runoff, wind, or ice movement.

9. **"Erosion Control"** means methods employed to prevent erosion. Examples include soil stabilization practices, horizontal slope grading, temporary or permanent cover, and construction phasing.

10. **"Exposed Soil Areas"** means all areas of the construction site where the perennial vegetation (including trees, shrubs, and brush) has been removed. This includes topsoil stockpile areas, borrow areas and disposal areas within the construction site.

11. "**Final Plans and Specifications**" means the reports, prints, drawings, written descriptions, and clear technical requirements necessary to build a project used by the owner for the purposes of entering into a construction contract.

12. "**Final Stabilization**" means that all soil disturbing activities at the site have been completed, and that a uniform perennial vegetative cover with a density of 70 percent of the cover for unpaved areas and areas not covered by permanent structures has been established or equivalent permanent stabilization measures have been employed. Examples of vegetative cover practices can be found in Supplemental Specifications to the 1988 Standard Specifications for Construction (Minnesota Department of Transportation, 1991).

13. "**Five or more acres of total land area**" means any project that disturbs at least five acres of land measured by the project's construction corridor, excluding areas staked as not to be disturbed. If the project is less than five acres, but is part of larger common plan of development or sale (where multiple separate and distinct construction activities may be taking place at different times on different schedules but under one plan), it is defined as "five acres or more of total land area."

14. "**General Contractor**" means the party who signs the construction contract with the owner to construct the entire project described in the final plans and specifications. Where the construction project involves more than one contractor, the general contractor will be the party responsible for managing the entire project on behalf of the owner. In some cases, the owner may be the general contractor. In these cases, the owner will sign the permit application as the general contractor and would become the sole permittee.

15. "**Impervious Surface**" means a constructed hard surface that either prevents or retards the entry of water into the soil and causes water to run off the surface in greater quantities and at an increased rate of flow than prior to development. Examples include rooftops, sidewalks, patios, driveways, parking lots, storage areas, and concrete, asphalt, or gravel roads.

16. "**Local Permitting Authority**" means the township, county, municipality, conservation district, watershed district, watershed management organization, or other public entity which has the authority to review and approve construction activities.

17. "**Local Unit of Government's Existing Storm Water Management Plan or Practice**" means plans or practices developed by the local permitting authority under state law for the purposes of protecting water quality.

18. "**National Pollutant Discharge Elimination System (NPDES)**" means the program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits under the Clean Water Act (Sections 301, 318, 402, and 405) and United States Code Title 33, Sections 1317, 1328, 1342, and 1345.

19. "**Notice of Termination**" means notice to terminate coverage under this permit after construction is complete, the site has undergone stabilization, and all conditions of this permit have been satisfied. Notice of Termination forms are available from the Agency.

20. "**Owner**" means the person or party possessing the title of the land on which the construction activities will occur; or if the construction activity is for a lease holder, the party or individual identified as the lease holder; or the contracting government agency responsible for the construction activity.

21. "**Permanent Cover**" means final stabilization. Examples include grass, gravel, asphalt, and concrete.

22. "**Paved Surface**" means a constructed hard, smooth surface made of asphalt, concrete or other pavement material. Examples include, but are not limited to, roads, sidewalks, driveways and parking lots.

23. "**Permit**" means a National Pollutant Discharge Elimination System/ State Disposal System (NPDES/SDS) permit.

24. "**Permittee**" means a person, firm, or governmental agency or other institution who signs the application submitted to the Agency and is responsible for compliance with the terms and conditions of this permit.

25. "**Runoff Coefficient**" means the fraction of total precipitation that is not infiltrated into or otherwise retained by the soil, concrete, asphalt or other surface upon which it falls that will appear at the conveyance as runoff.

26. "**Sediment**" means the product of an erosion process; solid material both mineral and organic, that is in suspension, is being transported, or has been moved by water, air, or ice, and has come to rest on the earth's surface either above or below water level.

27. "**Sediment Control**" means methods employed to prevent sediment from leaving the site. Sediment control practices include silt fences, sediment traps, earth dikes, drainage swales, check dams, subsurface drains, pipe slope drains, storm drain inlet protection, and temporary or permanent sedimentation basins.

28. "**Soil**" means the unconsolidated mineral and organic mineral material on the immediate surface of the earth.

29. "**Stabilized**" means the exposed ground surface has been covered by staked sod, riprap, wood fiber blanket, or other material which prevents erosion from occurring. Grass seed is not stabilization.

30. "**Standard Plates**" means general drawings having or showing similar characteristics or qualities that are representative of a construction practice or activity.

31. "**Storm water**" means the precipitation runoff, storm water runoff, snow melt runoff, and any other surface runoff and drainage (defined in 40 CFR 122.26 [b][13]). Storm water does not include construction site dewatering.

32. "**Temporary Protection**" means methods employed to prevent erosion. Examples of temporary include; straw, wood fiber blanket, wood chips, and erosion netting.

33. "**Waters of the State**" means all streams, lakes, ponds, marshes, wetlands, watercourses, waterways, drainage systems and all other bodies or accumulations of waters, natural or artificial, public or private, which are contained within, flow through, or border upon the state or any portions thereof. Waters of the state do not include storm water detention basins, or wetlands constructed for the purposes of treating storm water, which do not discharge to surface waters.

APPENDIX D

RESPONSIBILITIES

A. TRANSFER OWNERSHIP OR CONTROL

This permit may not be assigned or transferred by the permit holder. Where a new general contractor is selected after the submittal of an application, or where the general contractor changes, a new application must be, in accordance with Part I.B., submitted to the Agency at least 48 hours prior to when the general contractor begins work at the site.

B. PERMIT MODIFICATION

After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

1. Violation of any terms of this permit;

2. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

3. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or

4. Minn. Rules pts. 7001.0170 and 7001.0180.

C. RIGHT OF ENTRY

The Permittee shall, pursuant to Section 308 of the Act and Minnesota Statutes 115.04, allow representatives of the; Agency, local permitting authorities, local soil and water conservation districts, or municipality which operates the storm sewer system, upon presentation of credentials:

1. To enter upon the Permittee's premises where the construction activity is occurring for the purpose of obtaining information, examination of records, conducting surveys or investigations;

2. To bring such equipment upon the Permittee's premises as is necessary to conduct such surveys and investigations;

3. To examine and copy any books, papers, records, or memoranda pertaining to the storm water discharge.

4. To sample and monitor any substances or parameters at any location.

D. CIVIL AND CRIMINAL LIABILITY

Nothing in this permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance with the terms and conditions provided herein.

E. OIL AND HAZARDOUS SUBSTANCE LIABILITY

Nothing in this permit shall be construed to preclude the installation of any legal action or relieve the Permittee from any responsibilities, liabilities, or penalties to which the Permittee is or may be subject to under Section 311 or the Act and Minn. Stat. chs. 115 and 116, as amended.

F. LIABILITY EXEMPTION

This permit authorizes the Permittee to perform the activities described herein within the conditions set forth. In issuing this permit, the State/Agency assumes no responsibility for any damage to persons, property or the environment caused by the activities authorized or undertaken pursuant to this permit. To the extent the state/agency may have any liability for the activities of its employees, that liability is explicitly limited to that provided in the Torts Claim Act, Minn. Stat. § 3.736.

G. MINNESOTA LAWS

Nothing in this permit shall be construed to preclude the installation of any legal or administrative proceedings or relieve the Permittee from any responsibilities, liabilities, or penalties for violation of effluent and water quality limitations not included in this permit or applicable laws or regulations.

H. PROPERTY RIGHTS

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

I. SEVERABILITY

The provisions of this permit are severable, and if any provisions of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

J. NPDES/SDS RULE

The Permittee shall comply with the provisions of Minn. Rules pts. 7001.0150, subp. 3 and 7001.1090, subp. 1.A,B,C,H,I. This permit does not require the submittal of a data monitoring report.

K. OTHER STATUTES, RULES AND ORDINANCES

The Agency's issuance of a permit does not release the Permittee from any liability, penalty or duty imposed by Minnesota or federal statutes or local ordinances, except the obligation to obtain the permit.

L. MORE STRINGENT RULES

The Agency's issuance of a permit does not prevent the future adoption by the Agency of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards or orders against the Permittee.

M. AGENCY OBLIGATION

The Agency's issuance of a permit does not obligate the Agency to enforce local laws, rules or plans beyond that authorized by Minnesota Statutes.